



北京控股有限公司  
BEIJING ENTERPRISES HOLDINGS LIMITED

# 2018

## Beijing Enterprises Holdings Limited

### Corporate Social Responsibility Report





# About This Report

Beijing Enterprises Holdings Limited (“BEHL”) has consistently pursued comprehensiveness and harmony in regard to the Company’s economic, social, and environmental development. In 2014, we released our first social responsibility report. In the past five years, in order to meet the requirements of stakeholders, we have constantly disclosed corporate governance regarding environmental, social and governance issues annually.

This Report is the fifth report issued by BEHL. Adhering to our Corporate Social Responsibility (CSR) mission, “invest for a better life”, we implement the UN Sustainable Development Goals (SDGs) and present our CSR concepts, actions and results in four aspects: “excellent operation”, “environmental protection”, “employee-friendly workplace”, and “harmonious community”. The Report shows the CSR content and performance of the Company from January 1 to December 31, 2018.

All data and information disclosed in the Report are from the Company's relevant internal data collection and statistical systems and the CSR practice cases submitted by its subsidiaries. The content covers four business segments of the Company: gas, water and environment, solid waste treatment, and beer, and covers the Headquarters of BEHL and its subsidiaries, including Beijing Gas Group Co., Ltd. (“Beijing Gas”), China Gas Holdings Ltd. (“China Gas”), Beijing Enterprises Water Group Limited (“BE Water”), Beijing Enterprises Environment Group Limited (“BE Environment”), Beijing Enterprises Holdings Environment Technology Co., Ltd. (“BEHET”), EEW Energy from Waste GmbH (“EEW GmbH”), and Beijing Yanjing Brewery Co., Ltd. (“Yanjing Brewery”). Although China Gas and BE Water are not included in consolidated financial statements, they are still highlighted in information disclosure in the Report considering the importance of their business. If not specified, the data is disclosed in consolidated terms, and the amount is shown in RMB (yuan) or Hong Kong dollar (HK\$) in this report. If the data in this Report is inconsistent with the financial statements, the data in financial statements shall prevail.

The Report is aligned with *Appendix 27 Environmental, Social and Governance Reporting Guide* (ESG Reporting Guide) to the main board listing rules of the Stock Exchange of Hong Kong (HKEx), the *Social Responsibility Guide (ISO 26000)* of International Organization for Standardization (ISO) and the *GRI Sustainability Reporting Standards* (GRI Standards) issued by the Global Sustainability Standards Board (GSSB).

For the convenience of expression and reading, Beijing Enterprises Holdings Limited is hereinafter referred to as “BEHL”, “the Company”, or “we”.

The Report is prepared both in Chinese and English. The Report is available in hard copy and soft copy. Please browse and download the Report from the following websites or contact us for a hard copy:

## HKEx Website

<http://www.hkexnews.hk>

## BEHL Website

<http://www.behl.com.hk>



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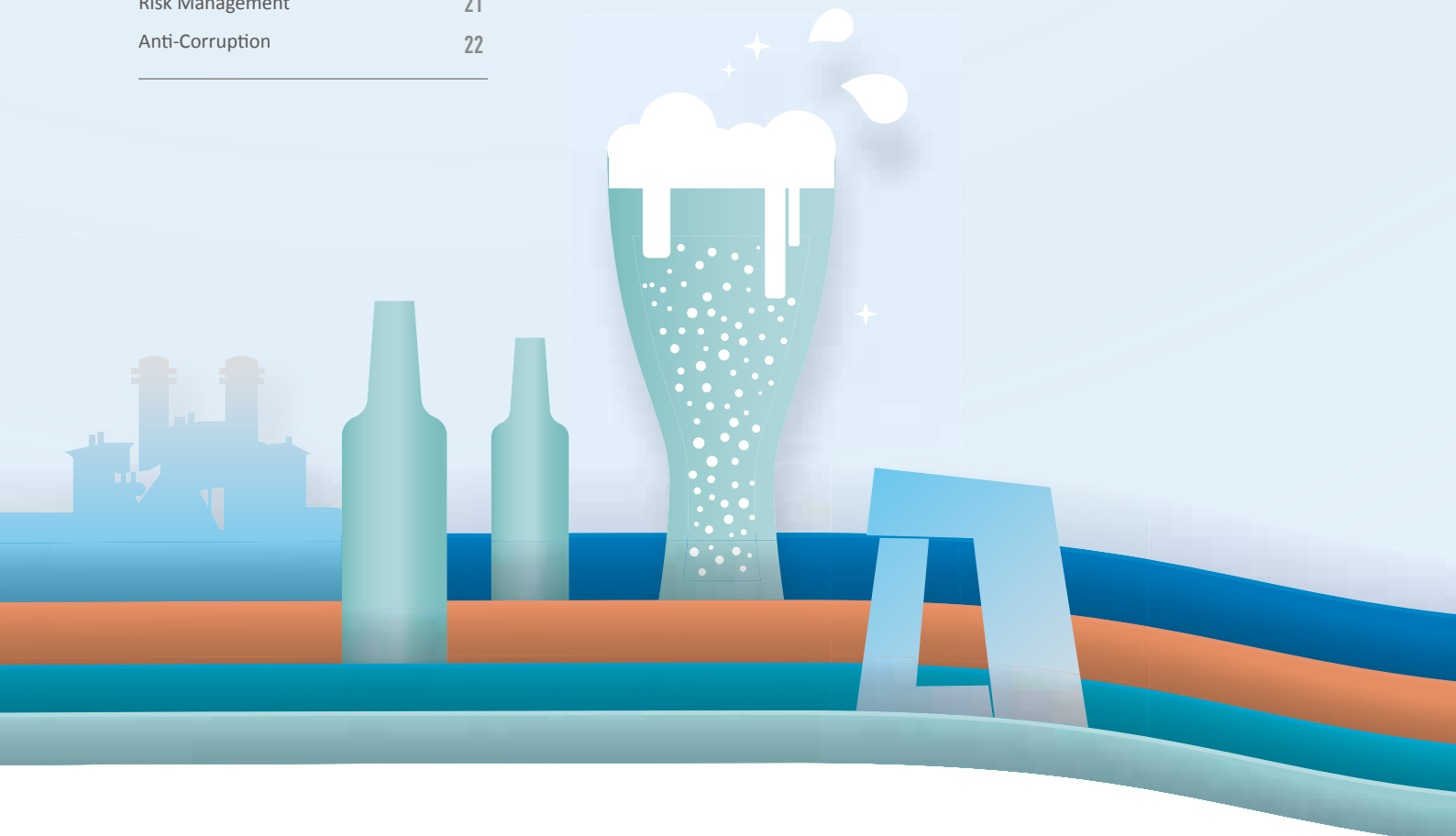
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## Chairman's Statement



We are pleased to present you this report. On behalf of the Board of Directors, I would like to thank you for your continued interest and support for BEHL!

Looking back on 2018, BEHL, as a builder of a better life, adhered to the concept of "invest for a better life" and implemented a proactive, robust, prudent and dedicated development strategy. We continued to grow ourselves, contributed to and witnessed the progress of the age while serving the country's ecological civilization development, promoting green development, and meeting public needs for a quality life. The Company achieved an annual operating revenue of HK\$67.76 billion, representing a year-on-year increase of 17.8%, and a coordinated, sustainable development of business, society and the environment.

While earnestly developing our business, we were committed to fulfilling our social responsibilities:

**We focused on providing quality products and services and continuously promoting innovation and development.** All business segments - gas, water and environment, solid waste treatment, and beer - guaranteed the provision of quality products, projects and services; strictly examined the safety, health and environmental performance of suppliers to build a responsible supply chain; actively participated in industry interaction and carried out multi-party cooperation and exchanges to share achievements and to promote the development of industry ecology in a sustainable and healthy manner.

**We valued and strived for a better ecological environment and continued to practice low-carbon operations.** By virtue of business advantages, we promoted clean energy applications and strengthened the harmless treatment of solid waste and comprehensive treatment of the water environment; we continued to improve the environmental management system by establishing a smart energy and resource management platform; we actively worked on energy conservation and consumption reduction by building green factories, advocating green office and pursuing the environmental philosophy of "environment is people's livelihood with beauty in green mountains and happiness in blue sky."

**We regarded employees as the Company's most valuable asset and encouraged and supported personal development.** Adhering to the management concept of putting employees at the core, we built an equal and diversified career development platform and training system to help employees improve professional skills and achieve long-term personal development through basics training, cooperation between enterprises and colleges, and training abroad; we unblocked communication channels to keep abreast of employees' demands and conducted regular employee exchanges to enhance employees' sense of gain, sense of accomplishment and sense of belonging in an all-round manner.

**We carried out social and environmental undertakings elaborately and continued to deepen exchanges between Beijing and Hong Kong.** Based on the public-spirited brand campaign "On the Way-BEHL", we spread the concept of environmental protection through the "Green Seeds Project" and fund-raising walkathon; based on the platform of Mingxi Charity Foundation, we supported the development and exchange of youth in Beijing and Hong Kong, organized such volunteer activities as visits to nursing homes and fund-raisings to help students with difficulties, and actively participated in community integration, contributing to building a better society.

Those who keep up with the times while sticking to original goal can make progress and eventually succeed. Looking into the future with accelerating changes, BEHL will keep in mind our original intention, while continuously promoting the coordinated development of related industries with innovative technologies and high-quality services, returning shareholders and the community with steady business growth, and creating higher value for stakeholders with practical social responsibility practices. We will continue to forge ahead toward our goal of "becoming a world-class comprehensive utility service provider"!

Chairman and Chief Executive Officer

Hou Zibo



# About Us

## Company Profile

Number of listed subsidiaries and associates

8



Founded in 1997, BEHL is a listed company on the Main Board of the Stock Exchange of Hong Kong (0392.HK). It is a constituent stock of the Hong Kong Hang Seng Composite Index and the Hang Seng China - Affiliated Corporations Index. It has a total of eight subsidiaries and associates as listed issuers (including six listed companies on the Stock Exchange of Hong Kong and two China A-share listed companies).

Over the years, BEHL has fully leveraged the dual resource advantages of Beijing and Hong Kong's capital markets and implemented a proactive, robust, prudent and dedicated development strategy to become a representative red-chip company in Hong Kong's capital market with sustained and steady growth in performance.

### 2018 Big Data of BEHL



### Corporate Vision

Establishing ourselves as "a leading national integrated public service company aiming at an integrated energy service entity"

### Corporate Value

A corporate value with "trust, innovative, steadfast and understanding" as its core

### Corporate Culture

Build a humanistic, motivated corporate culture with easy and harmonious human contacts



### Development Strategy

**One Focus:**

Focus on "green ecology"

**Two Adherences:**

Adhere to the "two-wheel drive" of capital operation and industrial operation

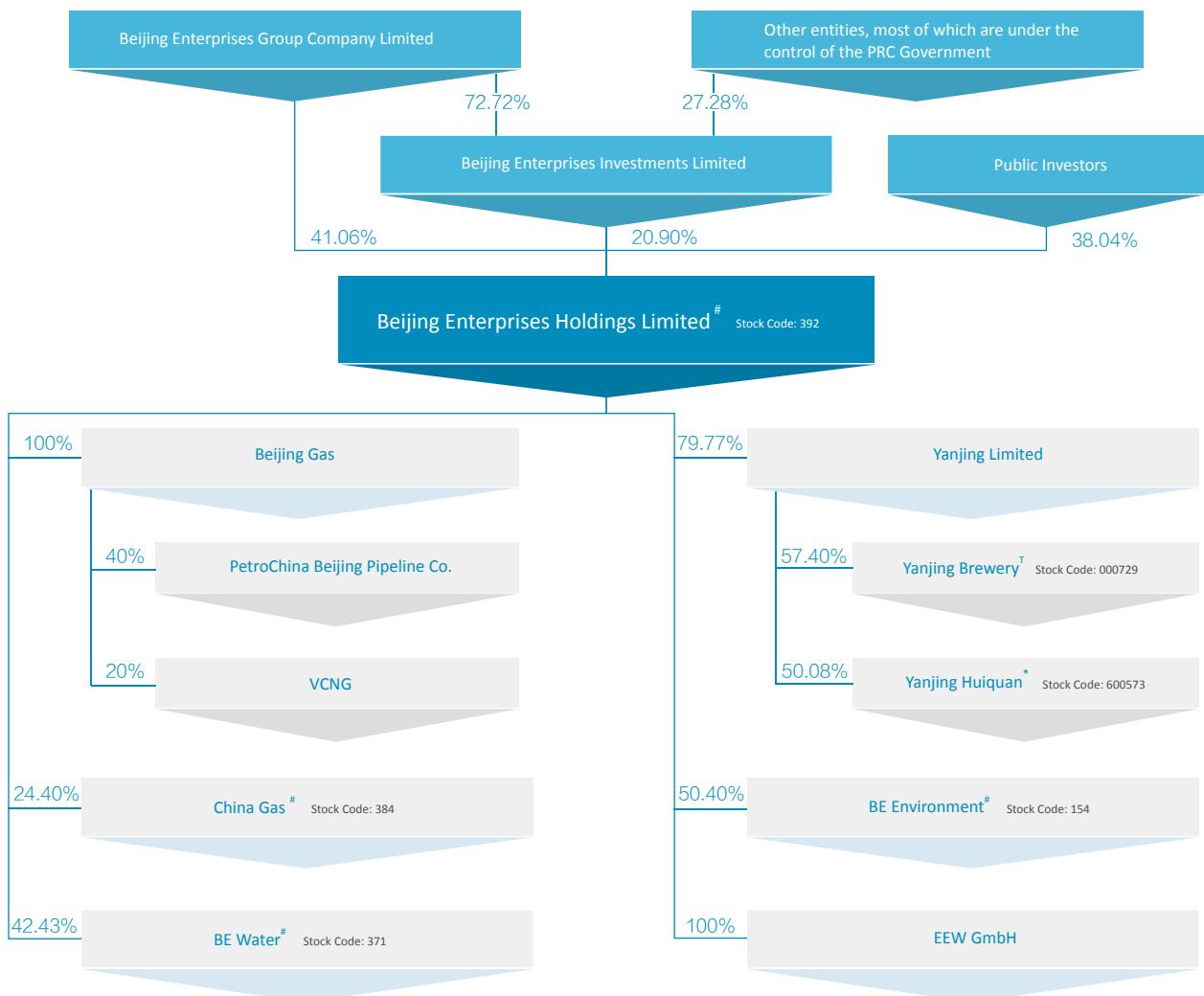
Adhere to enhancing "brand building" in business areas

**Three Markets:**

Maintaining a foothold in the Beijing-Tianjin-Hebei Region, expanding across the country, moderately entering the international market

## Corporate Structure

(As at December 31, 2018)



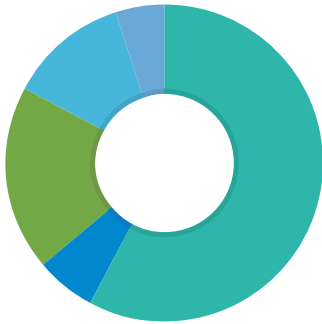
\* Listed on The Shanghai Stock Exchange

T Listed on The Shenzhen Stock Exchange

# Listed on The Main Board of The Hong Kong Stock Exchange

## Our Business

BEHL Total Assets Distribution



Gas	58%
Water and environment	6%
Solid waste treatment	19%
Beer	12%
Other operations	5%

As a comprehensive utility company, BEHL is mainly engaged in public utilities such as urban gas, urban water and solid waste treatment, and has a value investment business such as consumer goods represented by Yanjing Brewery, one of the largest beer companies in China.

Overseas, BEHL has a wealth of high-quality assets, such as its water business owning a number of technology-leading water projects in Malaysia, Portugal and other countries. In the solid waste treatment sector, we operate Europe's leading waste to energy utility company in Germany, Luxembourg and the Netherlands. BEHL has become a multi-channel capital market investment and financing platform in the public utility sector domestically and overseas.

## Geographical Business Distribution



### Gas

Main subsidiaries: Beijing Gas, China Gas  
 Core business: upstream resources and transportation, midstream gas market, and downstream gas market applications.

Beijing Gas has a total of 6.18 million users, operates a total of about 23,500 kilometers of natural gas pipelines. By March 31, 2019, China Gas had a total of 29.678 million residential users, operated a total of about 296,800 kilometers of natural gas pipelines.

### Water and Environment

Main subsidiary: BE Water  
 Core business: water treatment service and water environment renovation, covering urban water-related affairs, seawater desalination, membrane-related and industrial wastewater treatment, and so on.

BE Water participates in 937 water plants which are or will be in operation, including 771 sewage treatment plants, 139 water distribution plants, 25 reclaimed water treatment plants and 2 seawater desalination plants, with daily design capacity of 36.82 million tons.



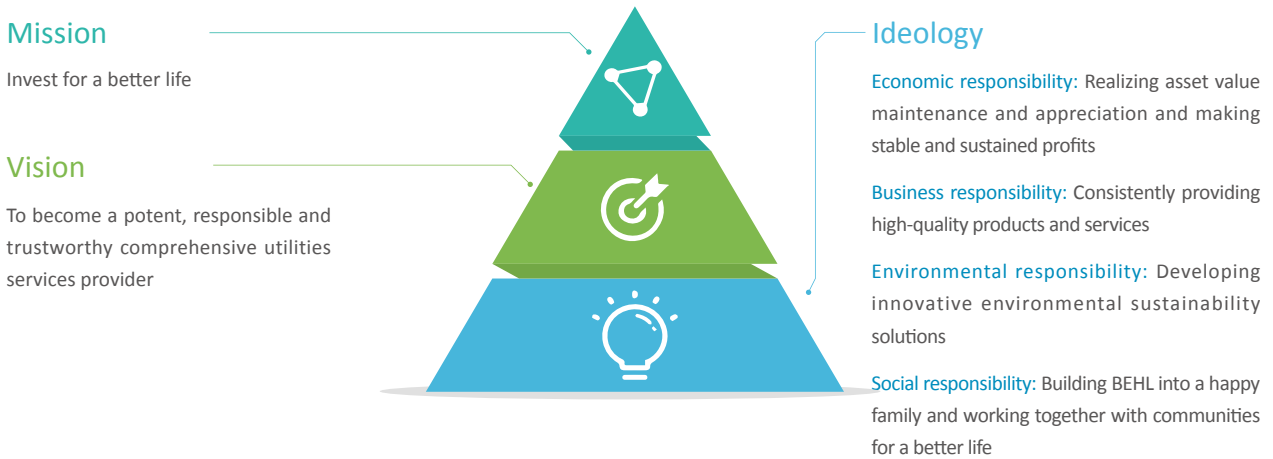
<p><b>Solid Waste Treatment</b></p>	<p>Main subsidiaries: BE Environment, BEHET, EEW GmbH</p> <p>Core business: municipal solid waste incineration for power generation, hazardous waste and medical waste disposal, sludge disposal, etc.</p>	<p>The capacity of waste incineration for power generation is 25,288 tons/day; the capacity of hazardous waste treatment is 115,000 tons/year.</p>
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<p><b>Beer</b></p>	<p>Main subsidiary: Yanjing Brewery</p> <p>Core business: manufacturing and selling beer, cordial, mineral water, beer raw materials, feed, yeast, plastic boxes, etc.</p>	<p>Brand value reached RMB 110.66 billion.</p>
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# CSR Management

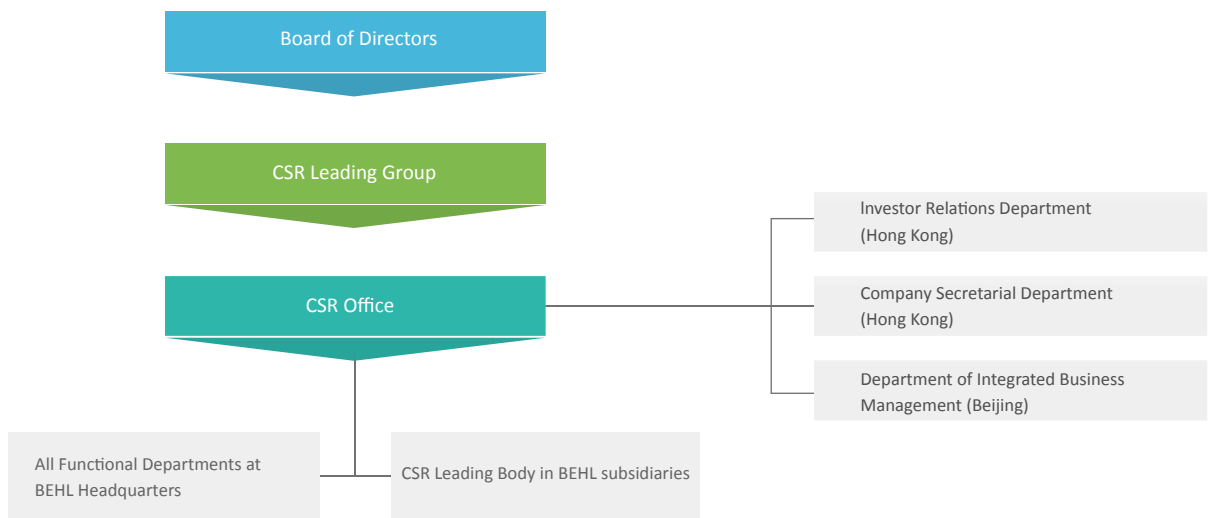
The Company has formulated the *Management Rules of Corporate Social Responsibility*. Under the guidance of the Rules, the Company has continuously improved the CSR management towards a scientific, systematic and standardized method, and continued to carry out activities to raise CSR management level such as the “Training on ESG Indicator Management and Information Disclosure”.

## Philosophy of CSR Management



## System of CSR Management









The CSR management system of BEHL covers the Headquarters and its subsidiaries. The Headquarters’ Board of Directors is the highest decision-making body for CSR work, responsible for overall planning and decision making and deployment of major issues. A CSR Leading Group has been established to implement the CSR work plan. The Investor Relations Department and the Company Secretarial Department of Hong Kong headquarters and the Department of Integrated Business Management of Beijing headquarters are responsible for the day-to-day liaison in respect of CSR and for coordinating with the subsidiaries’ responsible departments and relevant persons in charge. The subsidiaries have established their own CSR management system based on actual situation.





## Stakeholder Engagement

Communication and engagement of stakeholders are an essential part of the sustainable development of the Company. The Company attaches great importance to the concerns and interest appeals of all stakeholders by continuously improving the stakeholder management mechanisms, strengthening communication with stakeholders, and enhancing operational transparency.

Stakeholders	Topics Concerned	Response Channel	Effectiveness of Communication
 Government & Regulatory Authorities	Lawful business operations Pay taxes according to relevant laws Increase employment opportunities Promote sustainable and healthy economic development	Daily report and communication Seminars and on-site meeting Forum and exchange programme	Developed strategic cooperation with local governments Created good external environment for enterprise development
 Shareholders & Investors	Satisfactory investment return Good market value Transparent operation Improvement of profitability and core competitiveness	Annual report and announcements Roadshows and investor meetings Telephone conference with analysts Annual general meeting Company website	Established good relationship with investors Continuous improvement on credibility with investors Obtained the support from investors and shareholders on material decisions
 Customers	Continuous and stable supply of products High-quality and safe products Considerate and convenient service Smooth communication channels	Customer forums Telephone service hot-line Community service centers Customer satisfaction survey	Continuous improvement on business operation based on customers' feedback Efficient and timely solutions for customers' complaints Continuous improvement on customers service
 Business Partners	Fair procurement Sincerity and mutual benefits Long-term and stable cooperation	Suppliers' conference Strategic cooperation	Prepared suppliers management requirements, improved effectiveness of supply chain Facilitated co-development of upstream and downstream business partners
 Staff	Comprehensive rights and interests protection Good platform for career development Work-life balance Occupational health	Employee congress Complaint mail box Democratic communication platform	Vertical and horizontal communication among staff and hierarchies Created a harmonious workplace Built a healthy and safe working environment
 Communities and non-governmental organizations	Community development Establishment of a harmonious community Improvement in the environment of the community Open and transparency information	Science activities Community propaganda Participating in public welfare and environmental protection activities	Employed social supervisor for inspecting and supervising service quality Established good relationship with local community Created a good external environment for the enterprise development
 Media	Financial performance Corporate governance Information disclosure	Annual report and announcement Annual and interim results presentations News release and publications Media interview Media inquiries	Established a good relationship with media Maintained company image and received public recognition
 Environment	Clean energy supply Waste treatment Practice green operations	Annual reports and announcements	Implemented the "Clean Air Action Plan" Participated in environmental projects

Assessed and collected corporate governance, environment, labor, community and other ESG issues

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## Materiality Analysis

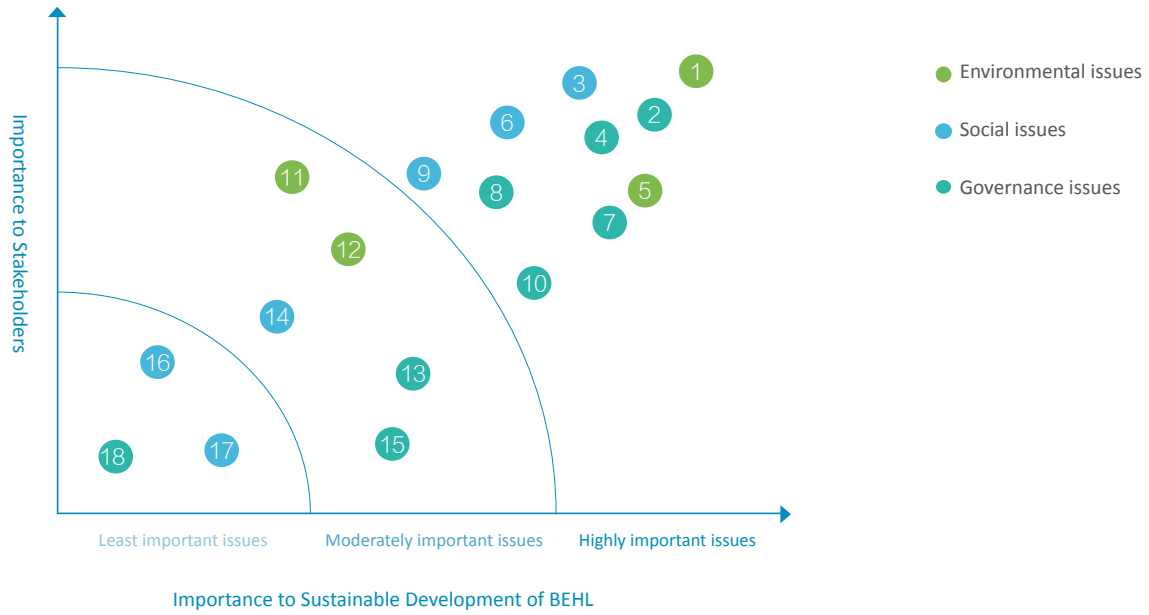
In order to understand stakeholders’ concerns, expectations and appeals regarding the Company’s sustainable development, as well as for internal performance review purpose, we identified the key ESG issues through materiality analysis. To this end, we established a standardized materiality analysis workflow with reference to the HKEx ESG Reporting Guide. This workflow identifies and screens the ESG issues related to BEHL, understands the level of concerns from stakeholders to the issues and the impact of these issues on the sustainable operations of BEHL, and then determines the material issues that will serve as the basis of our objectives for sustainable management.

## Materiality Determination Process



In 2018, based on the business review summary and internal executive review, we revised the results of BEHL ESG materiality and formed the following ESG materiality matrix:

### ESG Materiality Matrix of BEHL in 2018



Degree	Priority	Issues	Scope
Highly important issues	1	Waste emissions management	Environmental
	2	Compliance management	Governance
	3	Occupational health and safety	Social
	4	Promotion of environmental protection	Governance
	5	Energy conservation and emission reduction	Environmental
	6	Protection of employees' rights and benefits	Social
	7	Anti-corruption	Governance
	8	R&D and technology innovation	Governance
	9	Employee training and development	Social
	10	Sustainable returns	Governance
Moderately important issues	11	Clean energy supply	Environmental
	12	Materials and resources saving	Environmental
	13	Quality management of products and projects	Governance
	14	Care for employees	Social
	15	Customer service management	Governance
Least important issues	16	Social investment	Social
	17	Contribution to community development	Social
	18	Supply chain management	Governance



# Technology Innovation Empowering the Future



## Highly Important Issue #8

### R&D and technology innovation

**Our measures:** The Company and its affiliates increase investment in institutional building and resource input to fully guarantee and promote innovation and R&D. Through talent incentives, institutional incentives and the establishment of innovation platforms, the Company will strive to build enterprise competitiveness driven by technological innovation.

At present, a new round of technology revolution and industrial transformation is emerging across the world. BEHL adheres to corporate development driven by technology and innovation. We continuously integrate national advanced and new technologies, develop technology brands, and strengthen the construction of technology centers. With sustained efforts to consolidate and enhance the scale and quality of main business areas, BEHL is growing into an industry benchmark for multinational large-scale utility companies.

By the end of 2018, BEHL had a total of 13 high-tech affiliates, of which 9 were state-level high-tech enterprises, and owned 2 national laboratories such as "China Light Industry Key Laboratory on Beer Brewing Technology" and 1 national enterprise technology center, employing a total of 1,557 R&D personnel.



In 2018  
BEHL's total R&D investment

RMB **1.44** billion



Number of patent applications

**88**



Number of patent grants

**110**



Number of valid invention patents

**317**



## Beijing Gas: Building Smart Pipeline Network and Creating Quality Projects

Gas safety is no small matter. In order to comprehensively improve the safety of pipeline network operation, in 2018 Beijing Gas carried out intelligent pipeline network construction with improved standard architecture and a number of projects implemented. For instance, it expanded the depth and breadth of BeiDou system application in smart city management and deepened the application of AR and VR technologies in the fields of enterprise safety and production operations, which improved the pipeline network's operational efficiency and safety.

During the year, Beijing Gas applied BeiDou and big data technology to leak detection, drew the risk cloud map for targeted operation, completed high-precision test over 5,000 kilometers of pipelines, and eliminated 40 hidden dangers.

High-precision test

over **5,000** kilometers



Number of hidden dangers eliminated

**40**



### Consolidating the Foundation of Smart Gas Construction



#### System Construction

Based on the construction and transformation standards of Beijing city sub-center in Tongzhou, smart gas standard architecture was improved from facilities, communication, data and other aspects, and promoted throughout the city.



#### Project Development

Intelligent transformation of high-pressure stations, Yizhuang area and Beijing city sub-center in Tongzhou was completed, and the scope of transformation expanded to cover monitoring equipment of medium and low-pressure stations or boxes and monitoring equipment of key gate wells of minimum pressure control units within Third Ring Road of Beijing.



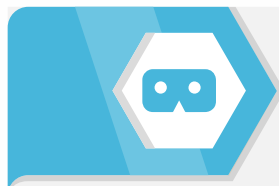
*VR technology is combined with BeiDou application to establish a full-space, self-adaptive scientific management model for pipeline operation and maintenance that closely combines two-dimensional VR and on-site environment. The model can be applied to pipeline network inspection, testing, construction coordination, emergency rescue and other operations.*

### Enhancing the Intelligence of Pipeline Network



#### BeiDou Navigation Satellite System

The "BeiDou + Gas" application planning research was carried out to explore the establishment of a closed-loop BeiDou application system covering multiple channels, full space and entire industrial chain to realize real-time data sharing and comprehensive coverage of important stations of high-pressure B and above with BeiDou disaster recovery communication.

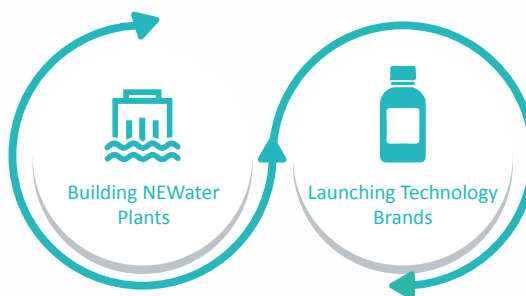


#### 3D Simulation

Research on AR and VR-related topics was conducted, virtual training module developed, and a complete virtual simulation management, training and decision system was established.

## BE Water: Creating Technology Brands and Leading Industry Innovation

China's water resources are in short supply, whereas demand for water is constantly upgrading. BE Water implements the concept of "symbiosis, interdependence, and regeneration". Through continuous investment in science and technology and R&D, it leads the innovation of reclaimed water-NEWater technology to "turn discharge into resource" and helps unblock the last link of social water cycle.



### Mr. Ban Ki-moon praised BE Water' Singapore Changi NEWater Plant

Water recycling has always been one of the key concerns of the United Nations. In July 2018, Mr. Ban Ki-moon, the 8th Secretary-General of the United Nations, conducted an on-site inspection at Singapore Changi NEWater Plant, which was built by BE Water, to understand the production status, and tasted the NEWater on the production line. Ban encouraged BE Water to continue to expand its NEWater business and make greater contributions to solving global water resources strain.

As one of the largest NEWater projects in Singapore, Singapore Changi II NEWater Plant is not only the first water concession project granted to foreign companies by the Singaporean government, but also has the highest automation level among the NEWater plants in Singapore, obtaining high recognition from the Singaporean government.



Mr. Ban Ki-moon inspecting on site



Mr. Ban Ki-moon tasting NEWater



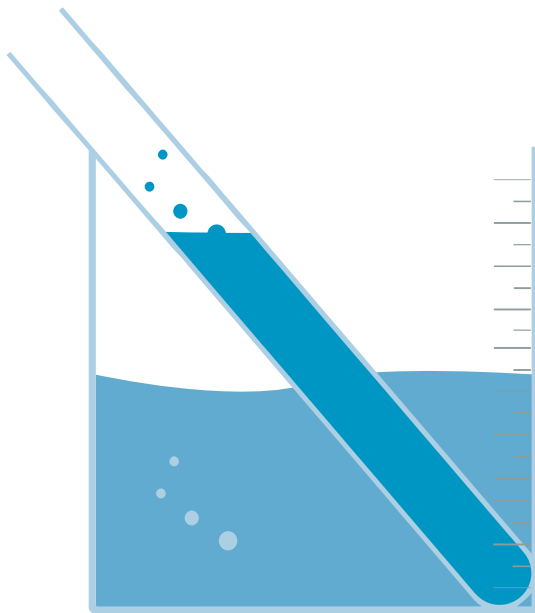


### NEWater Technology Brand AQENT Made Stunning Debut

In November 2018, BE Water launched the NEWater brand AQENT at the International Conference on NEWater and Efficient Utilization of Water Resources. AQENT™ aims to address efficient development and water recycling and to provide professional services for investment and financing, design, construction and operation across the life cycle of a project for domestic and foreign customers with advanced and independent core technologies. The water produced passed 189 tests, and its quality is higher than the standard requirements for drinking water of the World Health Organization, the United States Environmental Protection Agency, and China, addressing the urgent need for large amounts of water resources in industrial production.

Number of tests the produced water passed

189



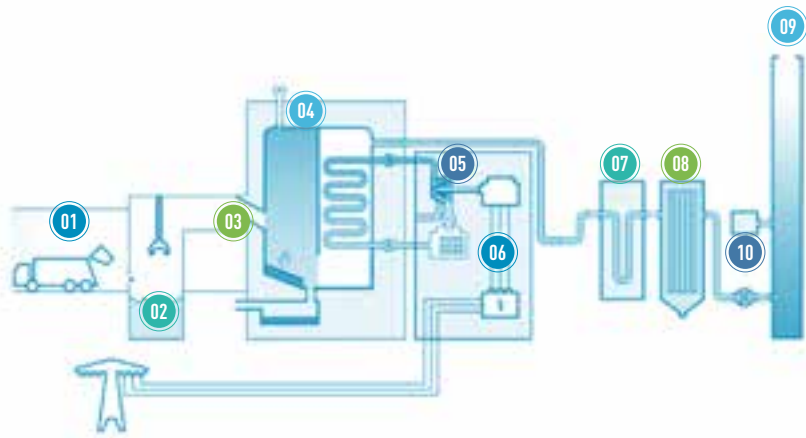
- A** — AUTOMATIC
- Q** — QUALITY
- E** — ENERGY-EFFICIENT
- N** — NEW WATER
- T** — TECHNOLOGY



Group photo at the International Conference on NEWater and Efficient Utilization of Water Resources

## Solid Waste Treatment: Actively Expanding Business to Achieve Multipronged Development

EEW GmbH is one of the ten leading companies in production of environmentally friendly energy from waste incineration in the world. Its energy utilization plants from solid waste is known for its low emission, high efficiency and safety. It represents the world-class level in terms of equipment standards, operational efficiency, technical level and emission indicators. Since the acquisition of EEW GmbH by BEHL in 2016, both sides have been striving for excellence, conducted site visits on exchanging experience and technological knowledge, continuously improved the operation of the plant, and actively expanded business scope to provide energy for more places and to reduce solid waste generation.



EEW GmbH solid waste heat treatment energy utilization process flow chart

01

Every week, several thousand tons of refuse derived fuel (RDF) are transported into the waste thermal recycling plant.

02

In the waste bunker, approximately 2,400 tons of fuel is collected and stored. With slight negative pressure, no smells penetrate to the outside.

03

From the entrance to the boiler, the RDF is automatically transported through the EBS crane system and continuously added into the hopper.

04

Because RDF at the high temperatures in the boiler will burn by itself, no additional fossil fuels are needed. Only when starting and stopping the boiler, a certain amount of fuel is needed to ensure the minimum temperature of 850 °C. The burning temperature is high enough to largely destroy pollutants. With the existence of urea, the nitrogen oxides are converted into nitrogen and water, which are environmentally neutral.

05

Approximately 65 tons of steam are produced every hour.

06

Equivalent to 82,000 megawatt hours of electrical energy are generated.

07

The exhaust gas from the boiler, with a temperature of approximately 180 °C, flows directly into the multistage emission control system. By adding hydrated lime in the exhaust gas stream and mixing the exhaust gas with recirculate in a vortex reactor, the deposition of dust and the acidic components of the exhaust gas take place.

08

Heavy metals, dioxins and furans are absorbed in the filter by post-treatment such as using activated carbon.

09

The clean gas leaves the 60-meter-high chimney without slag, fly ash and filter dusts. The slag is treated and used for road and landfill construction. Fly ash and filter dust are recycled.

10

A measuring station at the chimney constantly detects and monitors the emissions. The plant's performance has excelled the statutory emission standards, which are superior to European standards and comply with German standards.



## Yanjing Brewery: Strengthening Construction of Technology Center and Establishing Benchmark Brand

In order to achieve product upgrading, quality innovation, and process transformation, Yanjing Brewery doubles down on building a national-level technology center. It introduced various advanced instruments and equipment, built a team of professional technical talents, and joined hands with research institutes to continuously improve the center's independent innovation capability. While ensuring its beer quality inspection and control capabilities at the forefront of the world, Yanjing Brewery enhances its core competitiveness in the industry.



Equipment Installation

The center is equipped with more than 20 large-scale instruments such as world-class inductively coupled plasma mass spectrometer, gas chromatography-mass spectrometer, liquid chromatograph, ion chromatograph, and automatic beer analyzer.

It can analyze the quality of more than 400 beer flavorants such as fermentable sugar, amino acid and organic acid.



Talent Building

The center teamed up with top talents in Chinese beer industry to form a team of 29 experts, including 5 people with special government allowances from the State Council and 13 senior engineers.

Lin Zhiping Studio, Cao Yijie Chief Technician Studio and Guo Liyun Chief Technician Studio were established, and for major technical issues in the industry, technology systems were established respectively for energy saving and consumption reduction, healthy, nutritious and safe brewing, and monitoring of properties and vitality of strains of microorganisms such as yeasts.



Project Construction

The center teamed up with China Food Fermentation Industry Research Institute, National Food Quality Supervision and Inspection Center, Institute of Microbiology of Chinese Academy of Sciences, and Jiangnan University.

It has accumulatively undertaken 11 national and Beijing municipal research projects, and in 2018 successfully completed the project "Development and Application of High-Efficiency Dynamic Detection Technology System and Function Database for Contaminated Microbial Communities in Beer Brewing Process".



Shangxuan RedBeer from subsidiary of Yanjing Brewery won the "Qingzhuo Award" New Product Award

## "One Bottle, One Code" System Provides Guarantee for Product Information Traceability throughout the Life Cycle

By building the "Smart Yanjing" information system, Yanjing Brewery created a "One Bottle, One Code" mobile platform to optimize product information traceability management throughout the life cycle. The system adopts laser jet coding to completely eliminate the hidden dangers caused by the ink method to ensure food safety. The code is printed inside and outside the cap to establish data association, so that bottle code, crate code, layer code and stack code form four levels of data association, while the PDA outbound data is associated with dealer data to form a complete data chain connecting materials, production, sales and logistics, providing technical support for cross-region sale prevention, problematic beer traceability, dealer management, and logistics management.



# Corporate Governance



## Highly Important Issue #2

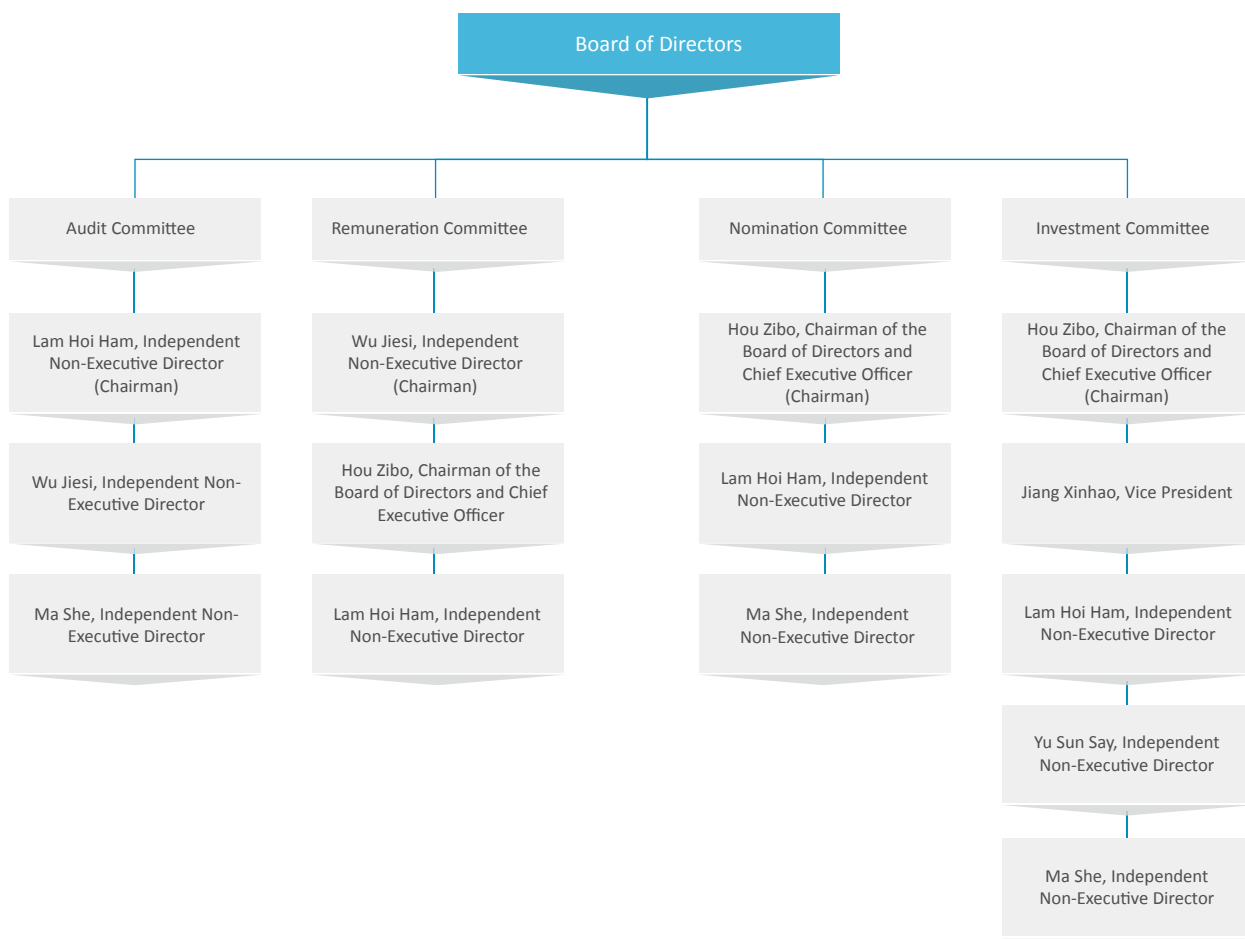
### Compliance management

**Our measures:** Adhering to operational transparency, the Company has formed a professional and efficient legal team to ensure that daily operations, decision-making content and procedures comply with relevant laws and regulations, to promote compliance management and legal publicity, and to improve compliance awareness of employees.

Committed to high-standard corporate governance, BEHL strictly abides by relevant laws and regulations such as the corporate governance rules in the *Listing Rules of the Stock Exchange of Hong Kong Limited* and the *Company Law of the People's Republic of China*. Adhering to the principle of standardized, scientific, open and efficient corporate governance, we improve corporate governance structure and measures to protect the long-term interests of the Company and stakeholders.

## Governance Structure

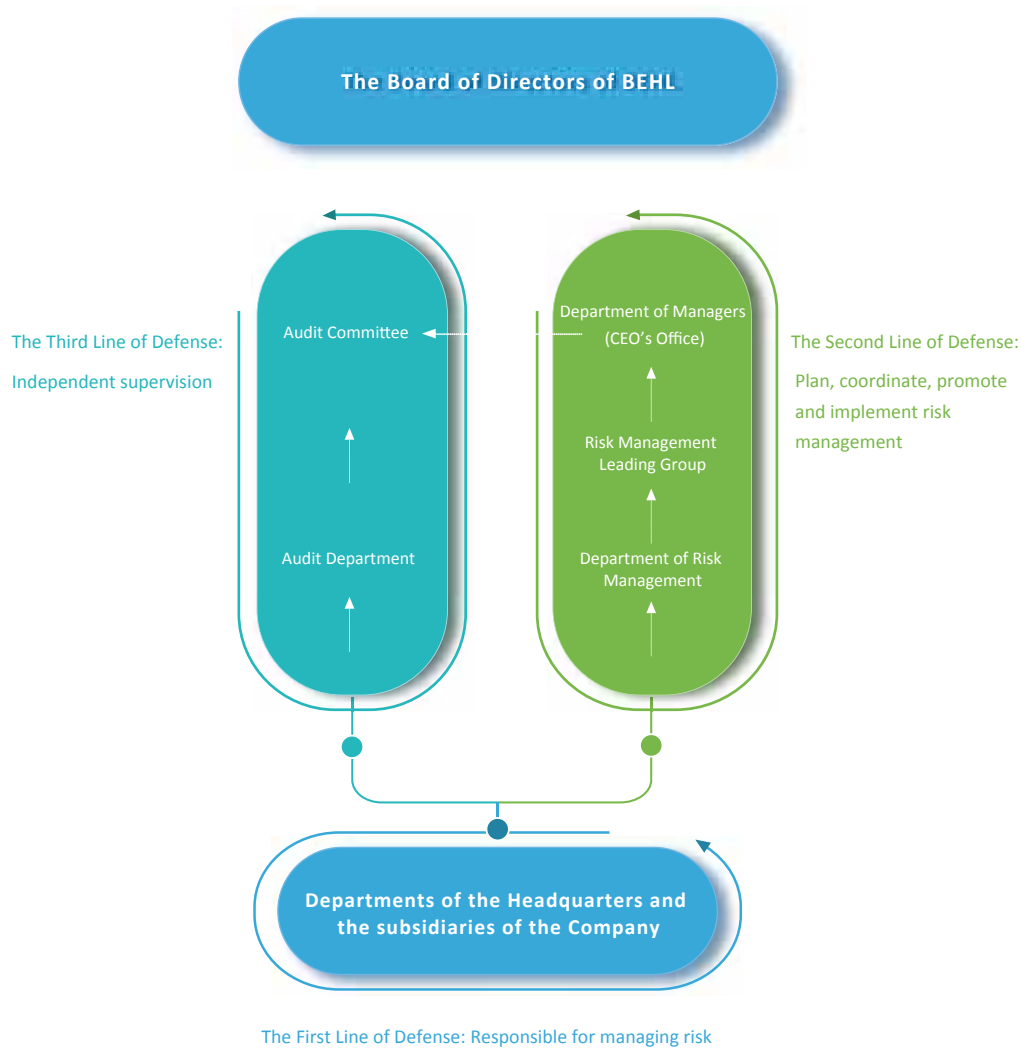
The Company's shareholders, board of directors and management team are delegated with clear authority and responsibilities. The Company's board of directors consists of eleven members, including six executive directors and five independent non-executive directors. The main responsibilities of the board of directors are to formulate corporate policies and strategic directions, ensure an effective internal control environment, and supervise the day-to-day operations of the management level. There are four committees under the board of directors: the Audit Committee, the Remuneration Committee, the Nomination Committee and the Investment Committee. Each committee is mainly comprised of independent non-executive directors and implements standardized, stable and efficient management.



## Risk Management

In order to effectively enhance our risk control capabilities, BEHL sort out the risks that may arise in the operation process of the Company and our subsidiaries to improve the capabilities of risk prevention; pay attention to risk supervision to promote risk management measures in place. In addition, BEHL strengthened internal control evaluation to promote the safe and stable operation of the Company's business activities.

In 2018, the Company adjusted the risk management leading group which consists of members with specialties of strategic investment management, enterprise management, financial management, legal affairs, external information disclosure and risk management, so as to further enhance the Company's objectivity of risk identification and foresight for risk prevention and control.



# Anti-Corruption

The Company attaches great importance to anti-corruption by strictly abiding by relevant state and local laws and regulations such as the *Anti-Money Laundering Law of the People's Republic of China* and the *Anti-Unfair Competition Law of the People's Republic of China*. Further efforts are made to implement clean governance and combat corruption systematically from five aspects such as rules and regulations, education and publicity, whistle-blowing and reports, appointment under supervision, and special tasks. During the reporting period, no corruption litigation occurred within the Company.



### Rules and regulations

Documents such as *Provisions on the Integrity of Employees with Business Discretion Right* are in place to guide our efforts for anti-corruption with a sound system.



### Education and publicity

Theme activities of anti-corruption education were conducted with the dissemination of related knowledge. Capability improvement training and case-sharing workshops were organized.



### Whistle-blowing and reports

The *Measures for Implementing Discipline Inspection and Supervision and for Handling Whistle-blowing and Reports* was formulated. The hotline, postal address and email address for whistle-blowing and reporting were announced. After a whistle-blowing or report is received (the informant may be anonymous), an investigation group will be established to formulate investigation plan, undertake investigation, and timely handle the case according to the investigation.



### Appointment under supervision

Before the appointment of important personnel, a *Personal Integrity Certification* is necessary to prevent promoting someone with integrity issues. Candidates to leading positions should be interviewed and tested on anti-corruption before the appointment.



### Special tasks

The *Measures for Supervision of the Company's Key Investment and Construction Projects (Trial)* was formulated including special inspections for key projects, company car use, and prevention and control of corruption risks, supervision and inspection for national holidays, etc.



## Highly Important Issue #7

### Anti-corruption

**Our measures:** The Company actively promotes the construction of anti-corruption system. All the management personnel with business discretion right must sign the *Letter of Commitment to Integrity*. For major projects, special supervision is conducted, whistle-blowing channels are open, and anti-corruption knowledge and training is delivered.

Disciplinary review capabilities training

Training programs such as "Common Challenges in Disciplinary Review" and "Discipline Challenges Encountered in Daily Work of Clean Governance and Anti-Corruption with New Requirements under New Circumstances" were offered to strengthen the accurate use of "Four Forms" of supervision and discipline, and self-capability building.

Pilot work on clean governance building in offsite subsidiaries

BE Water Yunnan Anning Haoyuan Branch was selected as a pilot company. Theme activities, distribution of books on clean governance and activities of bringing discipline to projects were organized.

Theme education campaign "Knowing, Advocating and Practicing Anti-corruption"

7 visits to anti-corruption education base, 13 special learning and 4 film viewing activities were organized; more than 20 articles and 7 "epigrams on anti-corruption" were received.

Dissemination of knowledge on anti-corruption

The content and schedule of "Things about Anti-corruption" – a column on the Company's office automation platform – was enriched with 13 issues published; a new column "Warning Case-sharing" was set up so that cadres and workers can understand knowledge on anti-corruption in a more intuitive way, and so far 8 issues have been published.



Education and Publicity on Anti-Corruption in 2018

Signing *Letter of Commitment to Integrity*

In order to further regulate employees' professional practice, employees at the headquarters and subsidiaries signed a total of 430 copies of *Letter of Commitment to Integrity*.

Anti-corruption training

83 project managers of the solid waste treatment business were organized to receive training with the theme of "Current Anti-Corruption Struggle and Situation"; a seminar was held on the topic of "Main Responsibility in the Construction of Corporate Integrity Culture", and a total of 52 people from the Company headquarters and affiliated companies attended.

"Delivering Discipline to Project" program

54 rules and regulations were compiled from the six aspects of business reception, business travel, company car use, bidding, contract management, and material procurement; 1,000 copies of poster were produced and distributed to affiliates who were required to put up the poster in prominent positions as warning.



# 01



## Excellent Operation

With public utilities as core business, BEHL is the guardian of clean air, the purifier of urban water environment, and the leader of turning waste into energy. We guarantee quality with high-quality operations and services based on safety. Driven by innovation, we strive to enhance the supply chain's operational responsibility of achieving sustainable and common development.

### 6 CLEAN WATER AND SANITATION



- participating in 937 water plants which are or will be in operation, with daily design capacity of 36.82 million tons

### 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



- Promoting technical exchanges
- Driving industry development

### 12 RESPONSIBLE CONSUMPTION AND PRODUCTION



- Product quality control throughout the process
- Continuously improving product quality





# Quality Creates Value



## Highly Important Issue #10

### Sustainable returns

**Our measures:** We draw the industrial advantage of joint development of beer business and utility sector based on city gas, water and solid waste treatment to achieve sustainable profitability with responsible products and excellent services.

BEHL focuses on addressing urban supply and environmental pollution challenges through joint development of beer business and public utilities based on city gas, water and solid waste treatment. It pays tribute to a green better life with sincere services and quality products.

## Gas • Stable Supply

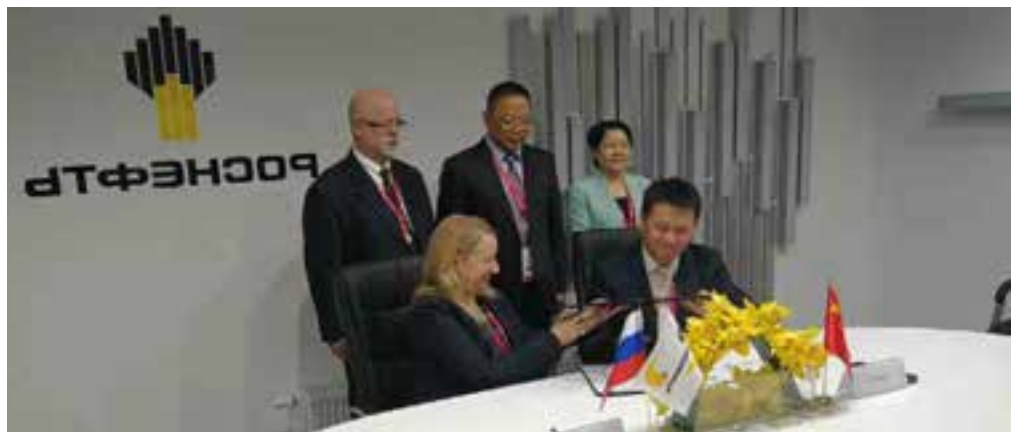
In 2018, Beijing Gas continued to strengthen its supply capability. It successfully completed various supporting tasks for the "Two Sessions", the China-Africa Cooperation Forum, and the Beijing International Film Festival, etc. Beijing Gas expanded the storage tanks at Tangshan LNG receiving station, newly built Tianjin Nangang LNG receiving station and large LNG storage and distribution stations in Beijing as an integrated combination plan to promote the "Beijing-Tianjin-Hebei" integrated development. At the same time, it actively advanced gas supply projects inside and outside Beijing and domestically and overseas, providing high-quality gas supply guarantee at all levels.



### Beijing Gas and Rosneft Signed a Cooperation Framework Agreement on Natural Gas Supply and Vehicle Gas

In June 2018, Beijing Gas and Rosneft jointly signed the *Guiding Framework Agreement on Supplying Russian Natural Gas to China*. According to the agreement, the "Power of Siberia" pipeline, which is scheduled to be completed by the end of 2019, will greatly meet China's growing natural gas demand. And Rosneft gas fields along the pipeline can become a source of natural gas supply to China.

In September, Beijing Gas and Rosneft signed a framework agreement for the establishment of a joint venture company in the field of natural gas vehicle refueling stations during the 4th Eastern Economic Forum in Vladivostok, Russia. The cooperation is in line with China's national strategy of the "Belt and Road Initiative" and the relevant national policies of Russia in encouraging gas fuels development in the transportation sector, and will further deepen the strategic partnership between the two sides.



Beijing Gas and Rosneft signing a framework agreement on cooperation in natural gas/vehicle gas fields



With close attention to extreme weather, we strengthen demand-side management and improve the "gas-heat-electricity" emergency coordination linkage mechanism. A number of measures are taken to ensure supply in summer and winter peak periods and to guarantee stable supply for peak gas consumption and total gas consumption in Beijing. In 2018, Beijing Gas adopted a number of measures to optimize pipeline network operation, such as pilot night and weekend operation mode, big data-based leakage detection, analysis of detected data of more than 5,000 kilometers of pipelines within the fourth ring of Beijing, etc., further improving operational efficiency and reducing pipeline operation risks.

Adhering to the philosophy of "Delivering Gas Benefits to All Households", Beijing Gas, while supplying high-quality clean energy, explores customer service in depth. In terms of gas safety, we continuously carry out various forms of gas safety promotion and home-based inspection. In terms of gas accessibility, we explore the field of "Internet + Gas" by building "Smart Gas" to provide more reliable and comprehensive services for the benefit of the people.



### Beijing Gas Launched the "Small and Micro-Engineering" Service Model

On December 17, 2018, Beijing Gas launched the "Small and Micro-Engineering" service model. Under this model, after the user raises the demand for gas supply, the regional company takes the initiative to go to the site to survey and develop a technical plan. Installation, connection and user sign-up to the gas system will be completed within 4 working days after the gas use conditions at the site are met, thereby realizing "door-to-door, zero-approval, zero-investment, and ultra-fast" gas access for users.



### A Different "Children's Day": Beijing Gas Safety Promotion into Campus

Ahead of Children's day of 2018, Beijing Gas entered the Xinxian Hutong Primary School in Dongcheng District and launched the "Gas Safety into Campus" campaign with the theme of "Gas Safety Care for Growth", giving teachers and students a vivid lesson on gas safety.

Through the use of video, cartoon PPT, interactive question and answer, etc., Beijing Gas introduced the basic knowledge of gas use in a simple way. The elaborately produced cartoon slides were well received among the students. This publicity class vividly demonstrated the knowledge on gas, so that the students could bear in mind gas safety and grow up safely and healthily.



In 2018

Gas sales volume of Beijing Gas reached

**16.83** billion cubic meters



Gas safety promotion

**851** times



Safety inspection for

**1,958,565** households



## Water and Environment • Integrated Management

In 2018  
BE Water signed new urban water projects

more than **40** 

Increased water treatment capacity by

**5,756,800**  tons/day

Signed new water environment treatment projects

over **10** 

Worth

RMB **17.1**  billion

Ranked No.1 among “Top 10 Influential Enterprises of Water Industry in China”

the **8<sup>th</sup>**  consecutive year

Aiming to build a dual platform of "asset management + operation management", BE Water expands the two core businesses of urban water and water environment management. Committed to building a high-level sub-center water environment project, it is deeply involved in the planning and construction of Xiong'an New District and helps water management in Tianjin by investing in Tianjin Huabo Water Co., Ltd. At the same time, it continuously promotes the construction of an ecological strategic system. In 2018, BE Water further expanded its environmental governance capabilities through environmental PPP project construction and acquisition.



### PPP Project for Comprehensive Management of Water Environment in Yuhangtang River Basin

The project features high-tech smart water demonstration, life-cycle systemic water quality guarantee, high-standard green ecological building design, and more livable ecological environment experience from the four dimensions of sewage treatment, water treatment, river improvement and mountain parks. Adhering to high-standard planning and construction, the project presents Hangzhou characteristics, taste and level with quality engineering. After implementation of the project, the main rivers were eliminated of inferior Category V water bodies, main indicators of main sections upgraded to that of Category IV surface water, thus a river ecosystem was established with self-purification capacity improved, landscape greening area increased by 750,000m<sup>2</sup>, landscape leisure space area increased by 73,000m<sup>2</sup>, and greenway with slow-moving traffic increased by 18.5km, constituting a comprehensive upgrade of the livable environment.





### Urumqi "Water into City" Project

Urumqi's "Water into City" project makes full use of renewable water resources to focus on addressing water shortage. By means of water resources recycling and connection of rivers and lakes, the project highlights low-impact development, waterfront landscape enhancement, multi-energy complementarity and combination with local culture, thereby forming an ecosystem in Urumqi featuring "creeks in the forest, water in the garden, and lucid water around the city", improving water surface ratio in central city and creating a livable waterfront environment.



### BE Water Released "Digital-Twin Sewage Plant" Concept Version

On April 22, 2018, BE Water released the concept version of its self-developed "Digital-Twin Sewage Plant" in the industry. This is the first time that the "Digital-Twin Sewage Plant" is released in the form of a complete system.

The "Digital-Twin Sewage Plant" concept version takes the form of a 3D virtual water plant. Based on enterprise cloud, IoT and big data platform, online simulation and big data analysis are used to develop big data tools such as water quality virtual meter and microbial image recognition. Such functions as water quality prediction, water volume prediction, biochemical analysis, material balance, process adjustment simulation, equipment fault diagnosis, etc. are realized, and a data-driven intelligent machine-led model was established to provide support for efficient operation and management of BE Water.





## Solid Waste Treatment • Business Expansion



In 2018

Our solid waste treatment business in China accomplished a waste treatment volume of

**4.19** million tons



EEW GmbH accomplished a waste treatment volume of

**4.705** million tons



The solid waste treatment business continuously expands its industrial scale, improves solid waste treatment capacity, and expands service chain. It enhances integrated capabilities in operational management by optimizing incineration process, rationally regulating operation and maintenance, and environmental protection benchmarking and rectification, ensuring emissions up to standard. During the reporting period, six new waste incineration production lines were built to continuously strengthen the solid waste treatment capacity.

In 2018, we continued to advance the integration of production, education and research by working with schools and institutes. By regularly engaging with EEW GmbH in technical application and operation management, we initially completed the program of a big data operation management system.



### Xixian New Area Municipal Solid Waste Treatment Project

The project adopts the PPP model and modern mature waste incineration technology to process 3,000 tons of municipal solid waste per day, 1 million tons per year. The emission indicators of flue gas pollutants meet the requirements of GB18485-2014 *Standards for Pollution Control on Municipal Solid Waste Incineration* and fully meet the relevant emission limits of EU 2000/76/EC and 2010/75/EC.



EEW GmbH factory in Delft Zell, The Netherlands

## Beer • Craftsmanship

The Company strictly abides by the relevant provisions of the *Product Quality Law of the People's Republic of China* and the *Food Safety Law of the People's Republic of China*. It formulated quality management documents such as *Procedures for Monitoring and Measurement Control of Processes and Products* to conduct strict quality management and control of each manufacturing process. Aiming at "quality beer in every bottle every batch", Yanjing Brewery is vigorously building excellent quality management system and food safety management system, excellent quality promotion center, and quality data management platform to promote optimal management practice. During the reporting period, its product quality continued to improve, and no major quality accident occurred.

In 2018, Yanjing Brewery implemented technical transformation and upgrading focusing on Yanjing Fresh Beer 10°, and achieved a breakthrough in flavor indicators of taste, purity, freshness and hop aroma. In addition, by taking advantage of innovation, Yanjing Brewery continued to introduce high-quality new products.



### Yanjing Brewery successfully launched "Liquan1998" in Guangxi Market

In 2018, the Guangxi market launched "Liquan 1998". The new product adopts the new Q yeast strain, premium Australian malt, European imported top hop formula, as well as fresh pure rice on direct supply guarantee. Yanjing Brewery adjusted significantly the saccharification process to boldly defy the traditional fermentation process, resulting in intense wheat fragrance, mild taste, and sweet after-taste, catering to young consumers' pursuit of fashion and individuality. The annual sales volume of the new product reached 400,000 tons in just one year after launch, breaking the industry record with the shortest beer product promotion cycle, the largest scale expansion, and the highest contribution rate.

In 2018

Yanjing Brewery achieved total sales volume of

**3.92** million kiloliters



Successfully teamed up with Beijing 2022 Winter Olympics and Winter Paralympics to be a

### "Double Olympics State Enterprise"



Welcome follow  
Yanjing Brewery Custom Service Official Account



Combined OGO of Yanjing Beer, Beijing Olympic and Palalympic Winter Games unveiled in December 2018

# Safety as Foundation



## Highly Important Issue #3

### Occupational health and safety

**Our measures:** We combine safety production and occupational health, implement occupational health responsibility system, and establish occupational disease records to ensure that all employees receive occupational health check.

BEHL has always adhered to the work safety policy of "safety first, prevention as focus, and comprehensive management". We formulated safety production management systems such as *Safety Production Management Regulations* and *Administrative Measures for Investigation and Management of Hidden Dangers of Production Safety Accidents* based on laws and regulations such as the *Safety Production Law of the People's Republic of China* and the *Law of the People's Republic of China on the Prevention and Control of Occupational Diseases*. With various protective measures such as policies and funds, no major accident occurred within the Company in 2018.

## Safety Management System

In order to establish a sound safety responsibility network system, BEHL and its subsidiaries signed the letter of responsibility for safety production, in which the safety production goals and responsibilities were decentralized to all levels of units who were urged to implement the safety responsibility system. The subsidiaries and business units at all levels signed the letter of responsibility for safety production, implemented further the responsibility system of "dual responsibilities for one post", and built a responsibility network system of "horizontal and vertical integration".

Through a multi-dimensional inspection mechanism, BEHL combines comprehensive inspection, special inspection and daily inspection and carries out safety inspections on all aspects of its subsidiaries in a planned and targeted manner. Subsidiaries at all levels implemented hierarchical supervision, registration and documentation for major hazards identified and confirmed, and tracked and supervised the rectification to ensure safety under control.



On-site safety inspection

## Safety Emergency Response System

In 2018, BEHL continuously improved the construction of an emergency rescue system for safety production. Based on actual operation on site, the project companies of BE Environment and BEHET organized special emergency rescue drills such as leakage of steam pipeline, leakage of running oil filter, and ignition of hazardous waste in material pit, etc., which enhanced employees' resilience and self-protection abilities. Beijing Enterprises Holdings Hongchuang Co., Ltd. and Beijing Enterprises High-tech Incubator Co., Ltd. organized a joint flood prevention emergency drill to ensure safety production during the flood season. For major hazards of various units, BE Water organized a total of 955 emergency drills covering confined space emergency, electric shock accidents, and so on.

## Safety Education and Training

BEHL carries out various forms of safety education and training in a solid manner. Responsible persons and safety management personnel at all levels of subsidiaries regularly participate in professional training to strengthen their grasp of safety knowledge and skills. The "three-level training" is offered to improve the safety awareness of employees. In 2018, BEHL organized safety education and training at all levels for about 170,000 person-times.



### Organize Safety Production Training

On November 9, 2018, BEHL organized a "Double Prevention Mechanism" safety production training. Nearly 40 people, including employees from Beijing headquarters, safety production supervisors, departments heads and relevant employees attended the training. Yang Yong, a safety production specialist of Beijing, was invited to conduct a training named "Establishment and Operation of Double Prevention Mechanism". Through this training, subsidiaries at all levels will continue to consolidate the basis of safe production, comprehensively improve the ability to investigate and control accident hazards and intrinsically safe production levels, effectively prevent and control the occurrence of various accidents, and make safety management more contemporary and scientific. It will play an active role in promoting the safety production standardization and ensure that the overall situation of the company's safety production continues to improve.

In 2018

BEHL's investment in safety

over RMB **900** million 

Organized safety education and training at all levels

**170,000**  person-times

Number of subsidiaries completed the safety production standardization assessment at all levels

**47** 



Safety training





Number of people participated in safety training and assessment

more than **1,200** 



*"Ankang Cup" Skills Competition of Solid Waste Treatment Business*

In 2018, each business segment of BEHL organized a variety of special programs and activities on safety, in particular, during the "Safety Production Month" period, through a series of activities, employees' safety knowledge and job skill were further improved.



### "Ankang Cup" Skills Competition of Solid Waste Treatment Business

On June 13-14, 2018, BEHL solid waste treatment business successfully held the 2018 "Ankang Cup" job skill competition, and 12 companies from the solid waste treatment business participated. The first phase of the event was safety knowledge training and assessment conducted by each project company on its own. A total of more than 1,200 people participated, basically reaching full coverage. The second phase was divided into two parts: job skill contest and emergency drill for liquid water leakage accident in chemical water workshop. Finally, the event was concluded with a written test and a quiz. The event fully demonstrated the positive spirit of our first-line employees, and strengthened the technical exchange among solid waste treatment companies under BEHL.





# Cooperation for Win-Win Outcome

BEHL attaches great importance to its role in driving the industry and the industry chain. It closely cooperates with peer companies and suppliers to promote the exchange of advanced technology and management concepts, committed to the development and prosperity of the industry.

## Strengthening Supply Management

We implement strict supplier selection standards and conduct regular assessments during the cooperation process to ensure a high-quality supply chain for BEHL. As of the end of the reporting period, the Company had a total of 1,641 suppliers, including 32 suppliers from overseas and Hong Kong, Macao and Taiwan.

Based on a sound bidding management system, a strict bidding process was established, and strict management and audit conducted on suppliers' qualifications and quality assurance capabilities in accordance with the supplier management process. Yanjing Brewery organizes an inspection team every year to go to Gansu, Xinjiang and other places to inspect major malt and hop suppliers, and product quality is controlled throughout the process from barley and hop cultivation to processing to ensure food safety and environmental safety of beer raw materials.

We place great emphasis on the performance of our suppliers in terms of safety, health and environmental protection. We also encourage and support suppliers to continuously improve relevant capabilities in order to create a sustainable and responsible supply chain. Our solid waste treatment business regards ISO-related system certification as one of the access conditions and responsibility for environment and health as an important indicator for regular assessment. Yanjing Brewery encourages suppliers to pass ISO14000, SA8000, ISO9000, HACCP, Green Food and other system certifications, while requiring products provided by suppliers of malt, hops, rice and corn starch to be certified as Green Food.

Total number of suppliers

1,641



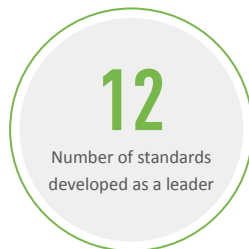
Number of suppliers from overseas, Hong Kong, Macao and Taiwan

32



## Active Engagement in the Industry

Performance in Standard Setting in 2018



Subsidiaries of the solid waste treatment business actively join the provincial and municipal industry associations, such as Jiangsu Electric Power Industry Association, Suzhou Electric Power Industry Association, Suzhou Environmental Science Society, Zhangjiagang Municipal Waste Classification and Resource Utilization Promotion Association, etc. to contribute to industry development.

Yanjing Brewery joined national and local associations such as China Green Food Association, China Food Industry Association, China Food Industry Association Professional Committee on Beer, China Wine Industry Association, Beijing Quality Association, etc. to promote the healthy development of beer industry from such aspects as production technology exchange and industry development trends. Yanjing Brewery also joined China SAO to pass on knowledge of alcoholic products in line with recognized scientific theories, to promote legislation and public policies release and implementation to reduce harmful drinking, and to help consumers establish a correct concept of alcoholic products and drink responsibly.

# 02



## Environmental Protection

To BEHL, environmental protection is the foundation of development, the essential responsibility and also the core business. Over the years, BEHL has adhered to the environmental protection concept of "environment is people's livelihood with beauty in green mountains and happiness in blue sky". By fully combining our own business characteristics, we actively respond to the national strategic policy of building ecological civilization. From improving management system to practicing energy conservation and consumption reduction, from building green factory to advocating green office, BEHL is fully involved in the lucid water and blue sky protection campaign, making contributions to building a beautiful China.

### 7 AFFORDABLE AND CLEAN ENERGY



- Waste incineration for power generation capacity scaled up to 25,288 tons/day
- In 2018, the gas sales volume of Beijing Gas increased by 15.4% year-on-year

### 11 SUSTAINABLE CITIES AND COMMUNITIES

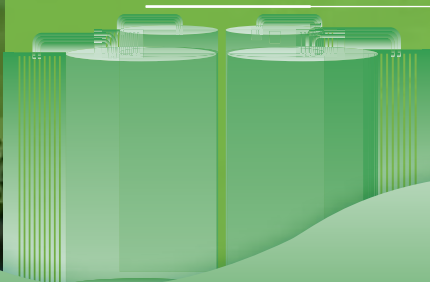


- Harmless disposal of solid waste by incineration for power generation
- Promoting application of clean energy such as natural gas
- Promoting sewage treatment and comprehensive water environment treatment

### 13 CLIMATE ACTION



- Developing energy saving work plans
- Efficient use of energy and water resources
- Advancing technology upgrades and equipment transformation
- Promoting online pollutant emission testing and disclosure of environmental data









# Upgrading Management System

BEHL strictly abides by the *Environmental Protection Law of the People's Republic of China*, the *Law of the People's Republic of China on Prevention and Control of Air Pollution*, the *Law of the People's Republic of China on Prevention and Control of Water Pollution*, and the *Law of the People's Republic of China on Prevention and Control of Solid Waste Pollution* among other state and local laws and regulations to continuously improve the environmental production management system. In order to reduce the impact on ecological environment and community residents in places where it operates,


BEHL seriously carries out environmental impact assessment in the early stage of any project and makes scientific and rational site selection. In the operation of the project, we develop environmental protection facilities operation and maintenance programs, regularly carry out environmental risks screening, and implement environmental education and training. All project companies are urged to establish a sound *Environmental Management* system to ensure least impact on the environment and safe and effective operation of environmental protection facilities.

**Gas** 

The *Energy Management System* was formulated to facilitate the implementation of the energy infrastructure management and to steadily promote energy-saving technology transformation.

**Water and Environment** 

The *Environmental Management Manual* and related procedures documents were comprehensively revised in accordance with the national *Quality Management Systems* (GB/T 19001:2016) and *Environmental Management Systems: Requirements* (GB/T 24001:2016).

**Solid Waste Treatment** 

A series of documents such as *Environmental Management System*, *Standards for Environmental Assessment*, and the *System of Rewards and Punishment for Environmental Protection* were formulated, so that responsibilities are fulfilled, rewards granted to those with merits, and penalties imposed on those with demerits.

**Beer** 

A centralized control platform for exhaust gas and wastewater was established to improve the joint prevention and control system for environmental protection. A joint inspection mechanism was set up to strengthen the environmental protection management of branches.



## BE Environment Comprehensively Improves Environmental Management

In 2018, BE Environment carried out environmental protection work through system construction, screening for hidden dangers, conducting trainings and emergency management, etc.:

### System construction

BE Environment introduced the *Environmental Protection Standards Management System and the Environmental Protection Management System* which classified environmental testing objects. It also formulated a departmental responsibility system to ensure that environmental compliance is integrated into daily operations. A standardized management system for hazardous waste was established and project companies were encouraged to implement this system.

### Education and training

To strengthen environmental protection training, BE Environment held 38 environmental production management meetings and trained 673 environmental protection personnel during the year.

### Hidden dangers screening

In accordance with the regulations such as the *Standards for the Control of Municipal Solid Waste Incineration Pollutants* and the documents such as the *Environmental Impact Report* of each project Company, environmental hazards were investigated, and 57 hazards were identified and rectified.

### Emergency management

Five new emergency plans were prepared (revised) and 15 emergency drills for environmental emergencies were carried out during the year to strengthen rapid response capability and standardized operation in the event of emergencies.

## Addressing Climate Change

In order to implement the concept of green development and national strategic deployments to address climate change, BEHL combines the characteristics of business segment to customize energy-saving and water-saving targets and implementation plans. From production operation to daily office work, we comprehensively reduce energy consumption and greenhouse gas emissions, improve the utilization of energy and resources, and raise employees' awareness of energy conservation and emission reduction.

## Environmental Protection

As a clean energy, natural gas eases the contradiction between increasing energy demand and environmental burden. BEHL relies on Beijing Gas and China Gas to create a clean energy supply chain and provide multiple channels for gas supply, which plays an important role in reducing national dependence on conventional energy. In 2018, China Gas vigorously promoted the coal-to-gas transformation in rural areas of North China, and Beijing Gas launched the "Coal-to-Gas Transformation Action" to speed up the transformation of coal-fired boilers and to control bulk coal in rural areas. At present, there are no coal-fired boilers in Beijing and there is almost no bulk coal pollution in rural areas in the plains.

Beijing Gas completed transformation of **5,241** tons per hour of heating boilers during the year; therefore, all coal-fired boilers were eliminated in Beijing. While implementing the clean air action plan, Beijing Gas completed coal-to-gas conversion of about **24,600** households in **57** villages in 2018, built **705** kilometers of pipelines and **92** stations in total, including **89** pressure regulating stations (boxes) and **3** LNG stations, achieving zero coal consumption in the plain area of Beijing.

The promulgation of the "13<sup>th</sup> Five-Year Plan" for the construction of harmless treatment facilities for municipal solid waste reflects the government's determination to promote the development of the solid waste treatment industry. To this end, BE Environment, BEHET and other affiliates under BEHL continuously enhance professional capabilities of solid waste treatment, refine management process, optimize treatment process, and steadily expand the scale of project to turn waste into energy, thus to effectively alleviate the dilemma of "garbage besieged city".

The annual waste incineration-based power generation domestically and overseas was **2.81** billion kWh, saving **345,000** tons of standard coal.



### Highly Important Issue #4

#### Promotion of environmental protection


**Our measures:** Beijing Gas and China Gas actively expand the city gas business and promote the application of natural gas. BE Environment, BEHET, and EEW GmbH steadily expand the scale of waste incineration for power generation.



Huairou project in the solid waste segment



## Energy Conservation and Consumption Reduction

 **Highly Important Issue #5**

**Energy conservation and emission reduction**

**Our measures:** The Company implements energy conservation in all aspects of operation. An energy consumption online detection system was established to strictly control energy consumption. The Company extensively carries out technical transformation for energy conservation and consumption reduction, and vigorously promotes the use of clean energy to reduce the burden on the environment brought by the use of conventional energy.

Each business segment of BEHL has formed its own measures and work plans for energy saving and consumption reduction, and established an energy consumption monitoring system to achieve automatic detection of water, electricity and gas usage.

- Gas**

Beijing Gas established a smart energy management platform and a regional multi-energy coupling energy network, leading green, low-carbon and circular development.


China Gas built a coal-to-gas control system to enhance technical expertise in natural gas storage and transportation.
- Water and environment**

Standard procedures such as *Procedures for Project Operation Control and Procedures for Performance Monitoring and Control* were set up to continuously optimize energy and resource consumption.
- Solid waste treatment**

Each project company set up a leading group for energy conservation and emission reduction, incorporating energy conservation into corporate important agenda.
- Beer**

Yanjing Brewery implemented energy conservation and emission reduction by advancing the construction of a green manufacturing system, carrying out energy consumption benchmarking, continuously studying energy consumption, and unblocking the way to reasonable advices.


Number of aluminium cans purchased during the year

**1.64** billion 

In 2018, project companies of solid waste treatment segment launched an energy conservation publicity week with the theme of “saving energy and reducing consumption to protect the blue sky”. The *Program for Implementation of Energy Conservation and Emission Reduction* was formulated, while attention was paid to education on energy conservation. By conducting trainings, playing energy-saving and consumption reduction-themed promo on LCD display, hanging banners in the plant area, etc., employees’ awareness of energy saving and consumption reduction was enhanced.


In 2018


Gao’antun Project Company reduced electricity usage

**200,000** kWh 

Yanjing Brewery continued to improve the joint prevention and control system for environmental protection, to promote technical upgrading of hardware systems and processes of environmental protection systems. A centralized purchasing approach was applied to packaging materials purchasing to improve utilization rate. A total of 1.64 billion aluminum cans were purchased during the year. In 2018, the headquarters’ South Plant and Liquan Company were awarded the title of “Green Manufacturing Demonstration Factory” by the Ministry of Industry and Information Technology (MIIT), among the first three enterprises in the beer industry to receive the title. With outstanding water-saving performance, Guizhou Branch won the 2017 Guiyang Water-saving Grant in May.

Increased power generation

**3** million kWh 

 **Gao’antun Project Company Sees Desired Result in Low-Carbon Production**

In 2018, Beijing Gao’antun Waste To Energy Co., Ltd., affiliated to BE Environment, implemented circulating pump operation with variable frequency, saving 200,000 kWh of electricity per year, while adding two biogas burners to the incinerator to heat the primary air by biogas instead of steam, which saves steam consumption and increases power generation. Thus, biogas was fully utilized and power generation increased by 3 million kWh.



**Yanjing Brewery's Four Steam-Based Transformation Projects Achieve Energy Conservation and Efficiency Increase**

In 2018, Yanjing Brewery invested nearly RMB 6 million in four steam-based transformation projects covering steam pipeline optimization, condensate recovery increase, automatic control system installation, and heating by solar energy combined with air-source heat pump, thereby reducing steam usage.

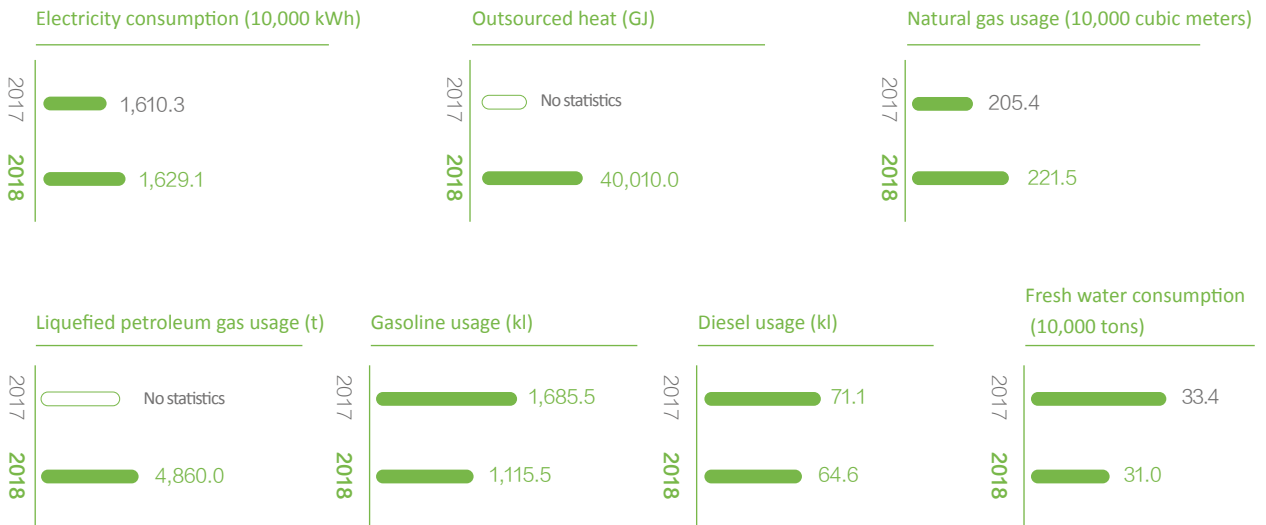
In 2018

Yanjing Brewery's total investment in steam-based transformation projects

nearly RMB **6** million

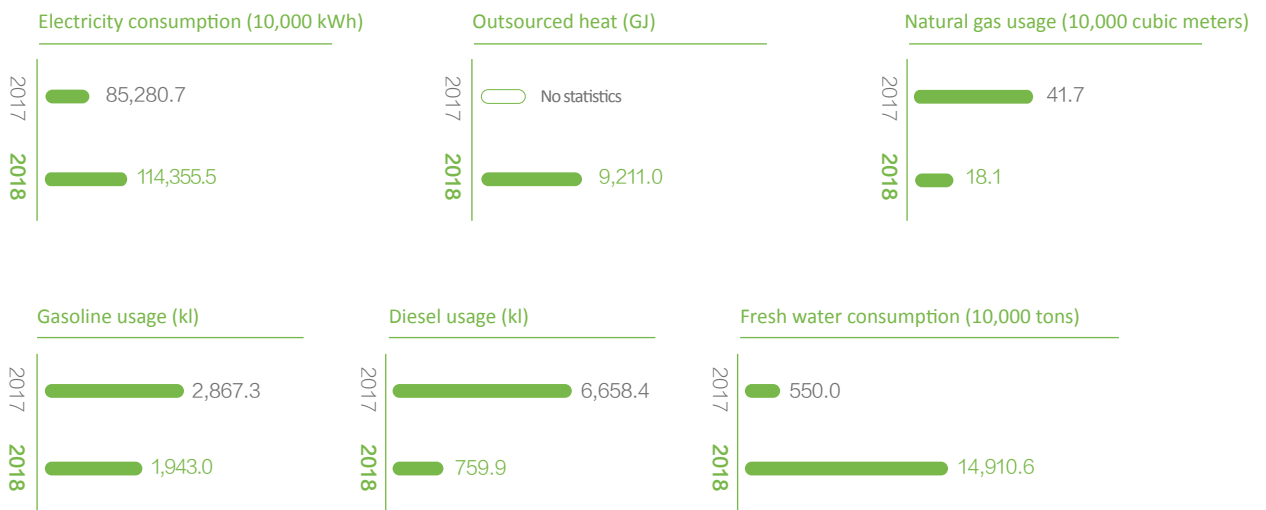


**2017-2018 Main Resources and Energy Use of Gas Segment**

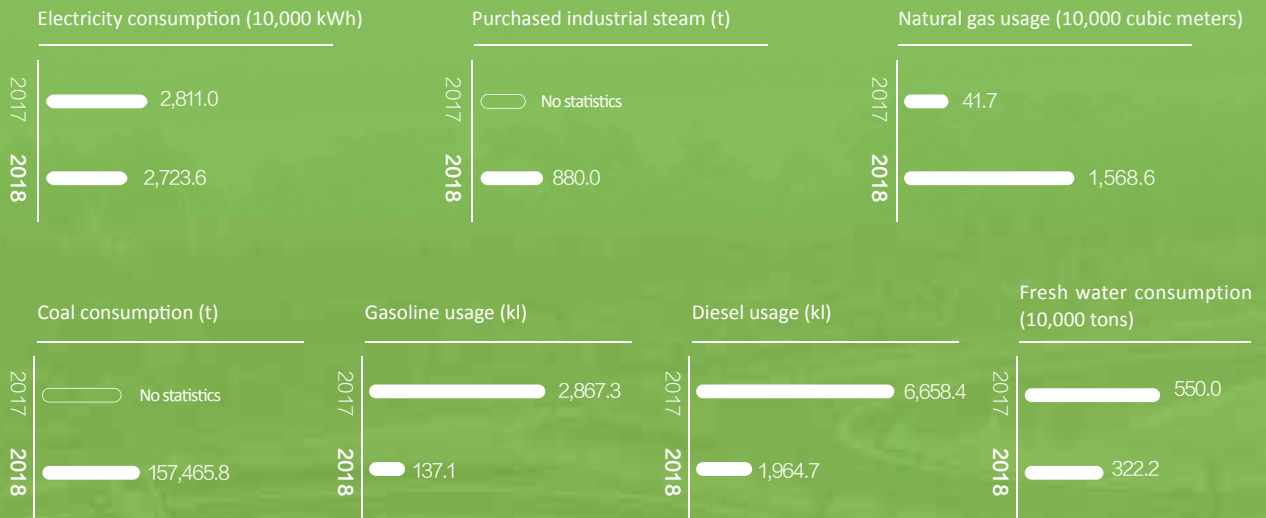


All quantitative data of the gas business in the "Environmental Protection" section covers only Beijing Gas.

**2017-2018 Main Resources and Energy Use of Water and Environment Segment**

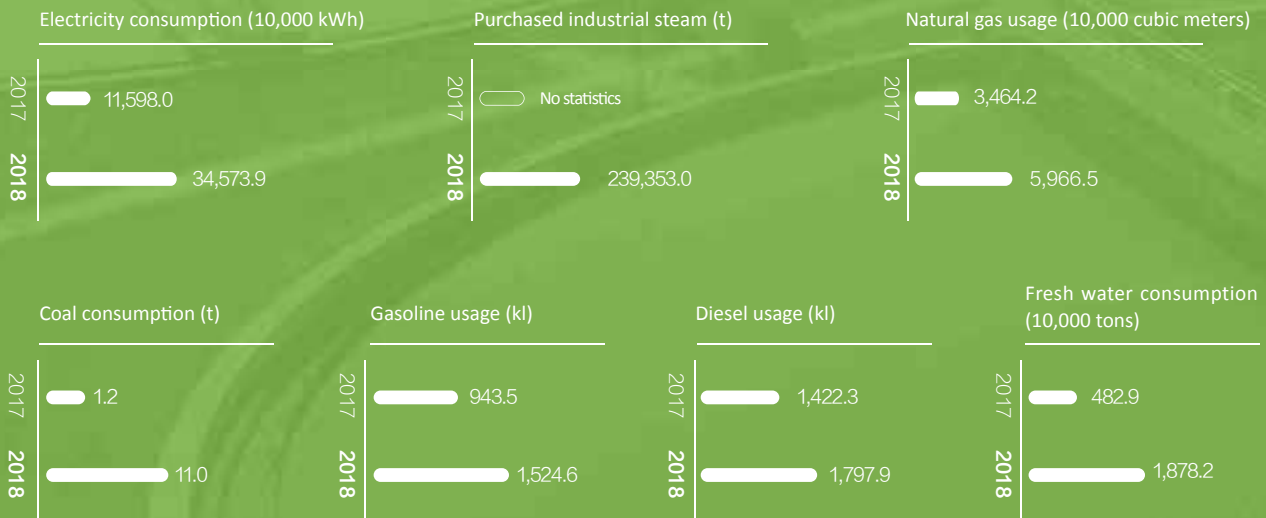


### 2017-2018 Main Resources and Energy Use of Solid Waste Treatment Segment



Note: The statistics of fresh water consumption do not include EEW GmbH.

### 2017-2018 Main Resources and Energy Use of Beer Segment



Note: The 2017 statistics cover only the Beijing area and the statistic of electricity consumption has been revised; the 2018 statistics are full-caliber and full-coverage data.

### BEHL 2018 Total Energy Consumption and Total Greenhouse Gas Emission

	Gas	Water and Environment	Solid Waste Treatment	Beer
Comprehensive energy consumption (tons of standard coal)	7,628.0	154,029.5	145,955.8	236,783.3
Total greenhouse gas emissions (10,000 tons of carbon dioxide equivalent)	2.3	99.6	43.2	79.8

## Green Office

BEHL calls on all employees to save electricity, water and paper, to improve the utilization rate of materials, and strictly controls the use of company cars, thereby comprehensively reducing resources and energy consumption.

### Green Office Measures



Management of electrical equipment is strengthened with the requirement of considering energy consumption while purchasing equipment; in addition, long-term standby must be avoided.

Office lighting is upgraded to LED energy-saving lamps. All corridor lighting equipment are checked to eliminate "everlasting lamp".



Daily maintenance of water equipment is strengthened, and water saving is promoted to avoid waste.



Paperless office is implemented, and electronic document transmission system and double-sided printing are promoted.

Procurement of materials is strictly controlled, and the management of office materials use is strengthened.

Unified management is implemented over company cars, and the system on the use of company cars was developed, to reduce the usage of company cars and eliminate unnecessary fuel consumption.

### 2018 Main Environmental Data of BEHL Headquarters Offices

Electronic waste (kg)	111.0
Office paper usage (kg)	1,270.0
Electricity consumption (10,000 kWh)	24.8
Gasoline usage (kl)	35.5
Fresh water consumption (t)	1,191.8
Comprehensive energy consumption (tons of standard coal)	68.5
Greenhouse gas emissions (tons of carbon dioxide equivalent)	299.0

*Note: The office building statistics cover the Hong Kong headquarters office and Beijing headquarters office.*

# Reducing Environmental Pollution



## Highly Important Issue #1

### Waste emissions management

**Our measures:** The Company implements clean production and recycles wastewater in strict compliance with relevant national and local laws and regulations, striving to achieve zero emissions.

As the state increases efforts in comprehensive management of pollutants, BEHL actively cooperates with local environmental protection bureaus to monitor industrial waste and update the Company’s sewage permit according to regulations. Through scientific project design, effective operation management, and strict discharge control, the Company minimizes total pollutant emissions and emissions per HK\$10,000 of revenue. In addition, BEHL has achieved recycling by classification, comprehensive utilization and harmless treatment of all solid waste in accordance with the relevant provisions of the *National Hazardous Waste List*.

BE Water implements stringent management of operational discharge in strict compliance with relevant national and local standards such as the *Discharge Standards of Pollutants for Municipal Wastewater Treatment Plants* (GB 18918-2002). The solid waste treatment business complies with relevant laws and regulations such as the *Standards for Pollution Control on the Municipal Solid Waste Incineration* (GB 18485-2014), *Pollution Control Standards for Hazardous Waste Incineration* (GB 18484-2001), and European Union 2000/76/EC and 2010/75/EC. On the basis of emission compliance, leachate is reused, and nearly ten project companies such as Changde Zhonglian achieved zero discharge of wastewater. Yanjing Brewery follows the national laws, regulations and industry standards such as *Clean Production Standards for Brewing Industry* and *Discharge Standards for Pollutants of Beer Industry* (GB 19821-2005). It established a centralized control system for exhaust gas and wastewater to reduce pollutant emissions, improve wastewater treatment capabilities, and promote green manufacturing.





## Waste Emissions of BEHL in 2018

### Waste Emissions of Water and Environment Segment in 2018

Wastewater	Effluent wastewater (10,000 tons)	Ammonia nitrogen (t)	COD (t)	Total phosphorus (t)
	351,578.9	6,268.4	79,355.3	1,593.7
Exhaust gas	Exhaust gas (million cubic meters)	Sulfur dioxide (t)	Nitrogen oxides (t)	
	952.0	17.1	212.0	
Hazardous solid waste	Hazardous waste generated by sewage treatment process (t)	Waste oil and other hazardous waste (t)	Non-hazardous solid waste	Sludge (10,000 tons)
	37,748.2	73.4		185.9

### Waste Emissions of Solid Waste Treatment Segment in 2018

Wastewater	Effluent wastewater (10,000 tons)	Ammonia nitrogen (t)	COD (t)		
	30.8	0.2	8.2		
Exhaust gas	Exhaust gas (million cubic meters)	Sulfur dioxide (t)	Nitrogen oxides (t)	Soot (t)	Dioxins (mg)
	17,141.3	1,453.7	5,122.8	165.5	1,514.1
Hazardous solid waste	Fly ash, etc. (t)	Non-hazardous solid waste	Slag, etc. (10,000 tons)		
	47.0		188.7		

### Waste Emissions of Beer Segment in 2018

Wastewater	Effluent wastewater (10,000 tons)	Ammonia nitrogen (t)	COD (t)	Total phosphorus (tons)
	1,408.7	42.3	937.7	17.2
Exhaust gas	Exhaust gas (million cubic meters)	Sulfur dioxide (t)	Nitrogen oxides (t)	
	3,884.6	415.0	503.0	
Hazardous solid waste	Waste lubricating oil, etc. (t)	Non-hazardous solid waste	Waste glass (10,000 tons)	Waste wheat grains, waste hops, coagulum and waste yeast, etc.(10,000 tons)
	36.0		7.5	38.6

Note: Due to the materiality principle of the ESG Reporting Guide and current statistics of affiliated companies of BEHL, (1) Waste emissions of gas segment, as a low-materiality issue, is not disclosed due to the characteristics of gas business (mainly natural gas distribution and gas transmission); (2) The water and environment segment data covers BE Water's major subsidiaries domestically and overseas; (3) The solid waste treatment segment data covers BE Environment, BEHET, and EEW GmbH, where exhaust gas statistics do not include EEW GmbH which is consistent with 2017.



### Beijing Gas Pledges to Reduce Methane Emissions by Working with the Natural Gas Industry

On June 26, 2018, during the 27<sup>th</sup> World Gas Conference, Beijing Gas signed the *Guidelines for Global Energy Industry to Respond to Climate Change* in Washington, pledging to further reduce methane emissions from operating natural gas facilities. Beijing Gas also called on all members of the natural gas industry chain - from production to end consumer - to participate.



### Yanjing Brewery Takes Multiple Measures to Reduce Emission and Pollution

Yanjing Brewery launched a number of waste treatment and recycling projects in 2018:

- Nearly RMB 1.03 million of natural gas cost savings was achieved through the transformation of biogas pipelines;
- The pipelines of boiler desulfurization and dust removal circulating water tank and wastewater workshop were connected, so that the waste alkali liquor is used to adjust the pH value of wastewater during treatment, saving the cost of alkali;
- The sludge discharge system of wastewater treatment station was transformed to increase sludge concentration and shorten the sludge discharge time by more than 60%, greatly reducing the reflux retreatment costs;
- A deep dewatering project by sludge crushing was built to treat 20 tons of sludge per day, which completely solved the sludge treatment problem and achieved zero discharge of sludge;
- A waste diatomite drying system was introduced, and the resulting sludge cake is disposed of by a third party to address sludge odor.

In 2018

Yanjing Brewery shortened the sludge discharge time by

more than **60%**



Natural gas cost savings

nearly **1.03** million RMB



### Zhangjiagang Project Company Reduces Flue Gas Emissions by Combined Treatment Process

In 2018, Zhangjiagang Jinzhou Renewable Energy Co., Ltd., affiliated to BE Environment, adopted the combination of SNCR in-furnace denitration + semi-dry reaction tower + activated carbon injection + slaked lime spray + bag filter processes. The average flue gas emissions met the national and European standards.



### Hengyang Project Company Carries Out Energy-Saving Technical Transformation

In 2018, Hunan Hengxing Environmental Technology Development Co., Ltd., affiliated to BE Environment, held several meetings to mobilize all employees to actively participate in energy conservation and emission reduction, and carried out a number of energy-saving technical transformation projects with initial results achieved.

**Rotary kiln incinerator transformation and upgrading:** The traditional thermocouple was replaced with infrared temperature sensor system to effectively improve the temperature and flue gas control when the incinerator is treating hazardous waste, which ensures the completion of incineration targets, reduces the emission of dioxins, and extends the smooth running of rotary kiln equipment.

**Standardizing hazardous waste treatment process:** Waste organic solution and distillation residue are mixed with hazardous solid waste pro rata to scientifically and effectively treat more than 100 tons of liquid and residue hazardous waste, and the heat generated by incineration is used to build a new drying room.

**Waste utilization:** The lye in the scrubber was replaced with more than 20 tons of waste baking soda, saving costs and reducing additional resource consumption.

In 2018

Hengyang Project Company scientifically and effectively treated liquid and residue hazardous waste

more than **100** tons 

The amount of waste baking soda that was used to replace lye

more than **20** tons 



EEW GmbH Factory in Göppingen, Germany

# 03



## Employee-Friendly Workplace

BEHL is deeply aware that its stable development is inseparable from the contribution of every employee. We respect our employees and adhere to the people-oriented principle. An equal and diverse career development platform was built to create a harmonious and loving working environment for our employees. We work together with our employees to create a better future for the Company.



- Equal employment opportunities
- Reasonable remuneration package
- Protecting the legitimate rights and interests of employees
- An inclusive and diverse career development platform





LM Organized

贊助單位



# 同行 WALKING WITH LINGNANIANS Fundraising Walkathon 2018



# LINGNAN UNIVERSITY





# Standardizing Employment Management

**Highly Important Issue #6**

**Protection of employees' rights and benefits**

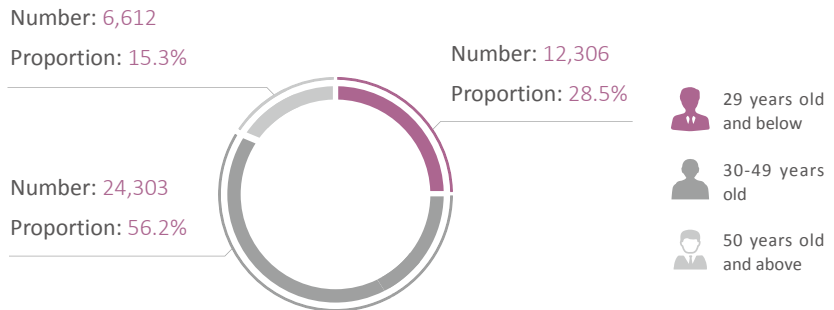
**Our measures:** The Company has established strict rules and regulations and whistle-blowing procedures to ensure equal and non-discriminatory employment, and resolutely prohibits employment of child labor or forced labor to protect employees' legal rights and interests.

The Company adheres to the policy of equal and non-discriminatory employment, attaching great importance to and safeguarding the legitimate rights and interests of employees. In strict compliance with the *Labor Law of the People's Republic of China*, the *Labor Contract Law of the People's Republic of China* and other laws and regulations, it formulated such rules and systems as *Regulations on Recruitment Management and Regulations on the Management of Labor Contracts and Personnel Files* and established employee rights protection and supervision mechanisms to ensure the legal rights of employees. It provides reasonable remuneration packages and benefits for employees and resolutely prohibits the employment of child labor or forced labor. At the same time, an open and transparent whistle-blowing procedure was established to protect employees from unequal treatment and to defend their rights and interests.

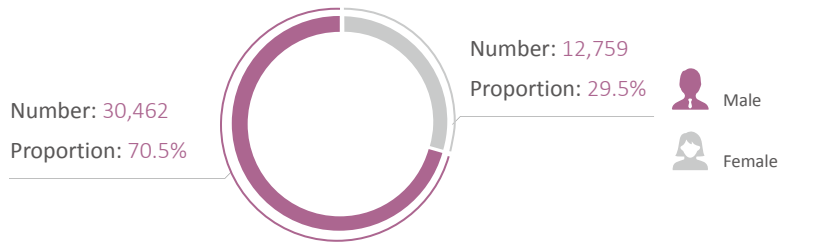
The Company advocates diversified development and fully respects the differences among employees from different backgrounds, different regions and different cultures. It is committed to eliminating employment and occupational discrimination and promoting mutual tolerance and common progress of employees.

## Employees Classification

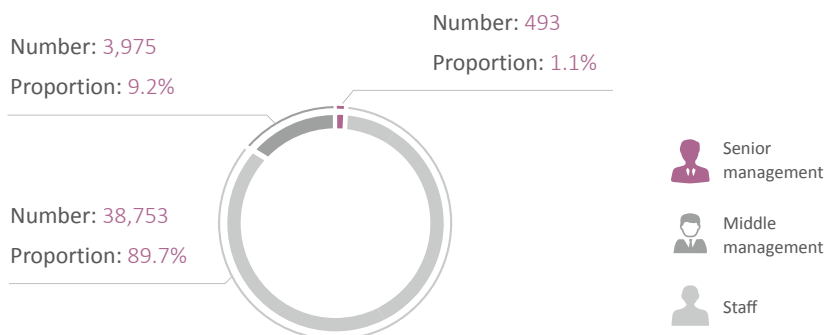
### By age



### By gender



### By employee type



As of the end of 2018  
The Company had a total of

**43,221** employees

Percentage of employees with labor contracts

**96.6 %**

The social insurance coverage reached

**100 %**

# Helping Employees to Grow

The Company provides employees with a work environment where employees can continuously learn, develop and unleash individual potential to the maximum. By tapping quality training resources of the society and universities, we expand the scale of training, enrich the content and form of training, and improve the comprehensive capabilities of employees.

The Company continuously strengthens its staff training and management from three aspects of formulation of policies, system construction and program development.



### Formulation of Policies

The Company formulated the *Training Management Regulations of Beijing Enterprises Holdings Limited (Revised Edition)* to standardize employee training.



### System Construction

The Company established a training system with comprehensive coverage, clear hierarchy and three-dimensional diversity.



### Program Development

#### Basic training

Including basic office skills, financial information management, health knowledge popularization, etc.

#### School-enterprise cooperation

Strategic cooperation was established with Beijing Instrumentation Senior Technical School and Beijing Municipal Management Advanced Technical School to carry out the "Dual Education System" order form class of Beijing Enterprises.

#### Training abroad

The Company organized the "Technical Training for Automatic Control of Waste Incineration for Power Generation, Flue Gas Treatment and Equipment Maintenance" in Germany and the "Special Training Course on Investment and Financial Risk Management and Leadership" in Hong Kong.



### Highly Important Issue #9

#### Employee training and development

**Our measures:** The Company has established a sound training system and talent cultivation system to help employees achieve professional development by introducing university resources, providing training opportunities overseas, etc.

In 2018

Employee trainings within the Company

**72,165** person-times

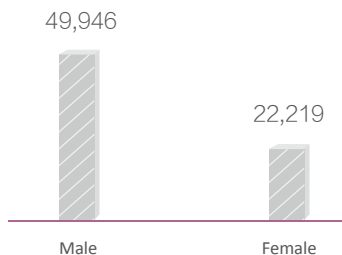
Total hours of employee training

**1,701,650** hours

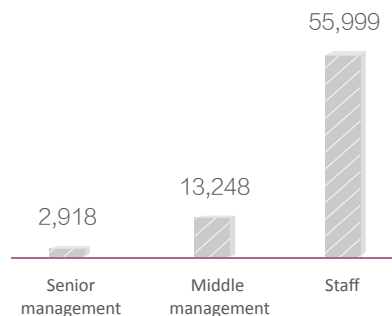
Average training hours per capita

**40** hours

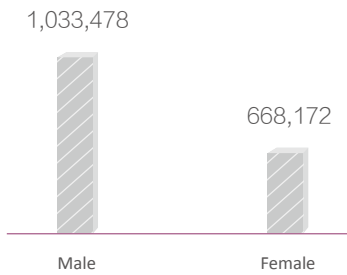
Trainings by gender (person-times)



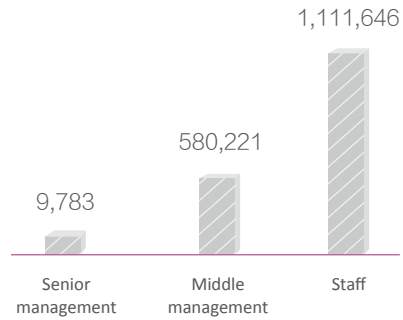
Trainings by employee type (persons-times)



Training hours by gender (hours)



Training hours by employee type (hours)



In 2018, based on the training in Hong Kong, the Company further enriched the training content by introducing Hong Kong Polytechnic University’s corporate development macroeconomics and leadership related courses. At the same time, the Company invited senior trainers and industry experts to offer training programs on basic office skills and special skills according to the actual situation of employees to improve their professional skills.



### A special training visit to Germany

From July 29 to August 15, 2018, 16 employees from BEHL subsidiaries participated in a training visit to Germany themed “Technology of Automatic Control of Waste Incineration Power Generation, Flue Gas Treatment and Equipment Maintenance”.

Following the two trainings organized in 2017, this training is the third phase of overseas training for technical management personnel organized by BEHL to strengthen Sino-German talent exchange and enhance the Company’s solid waste treatment business. The training is mainly carried out in the form of a combination of expert lectures, seminars and field visits. Participants got comprehensive understanding of the waste incineration industry in the context of circular economy from market operation, legal supervision, processing technology and development frontier perspectives. They also conducted in-depth study of EEW GmbH’s operation management mechanism, factory automation control technology, equipment maintenance, and warehouse management at EEW GmbH headquarters and factories. In the future, the participants will continue to draw nutrients from the advanced experience of German waste incineration enterprises, explore and innovate, and promote the development of the Company’s solid waste treatment business.



The EEW GmbH factory on site study

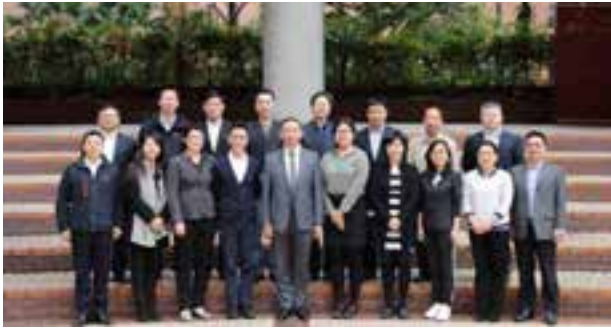


German expert giving theoretical lecture



### A Special Training Course Launched In Hong Kong

In November 2018, BEHL organized professional technical staff and business key personnel to go to Hong Kong for a five-day special training course on investment and financial management and leadership. During the course, many senior industry experts were invited to explain in detail the macroeconomic situation, investment and financing, overseas mergers and acquisitions, corporate integrity management and capital operation, etc.



### BE Water Held the Ninth Advanced Workshop for Managers

From March 29 to April 3, 2018, the ninth “Advanced Workshop for Managers of China’s Environmental Industry” was successfully held in Changsha and more than 90 key business personnel from BE Water headquarters, regional branches, subsidiaries and related companies attended. As a BE Water brand-name training program, the workshop adopted the “1+6\*24+1” all-round teaching model on management and practice. It invited well-known professors and senior experts from Tsinghua University to give lectures. The training covered leadership, team building, crisis public relations, policy interpretation, etc. to help employees improve their professional and personal capabilities.

Number of key business personnel participated

more than **90**



## Caring for Employee Life

The Company emphasizes work-life balance of employees and takes employees' demands seriously. By organizing a variety of employee activities, it enhances employees' sense of belonging and happiness.



BE Water "Changqing Cup" Staff Skills Competition Launching Ceremony

## Listening to Employee's Voice

The Company formulated the *Employee Satisfaction Survey Management System* stipulating employee satisfaction surveys on a regular basis to understand employees' suggestions and opinions on the Company. It established effective employee consultation and communication mechanisms and trade unions. Through grassroots research, visits to front-line employees, democratic discussions, etc., it understands and responds to employees' expectations and demands and protects employees' rights to know, to participate in and to supervise corporate management.



### BEHL's Leaders Visit Front-line Employees of Wuhan Factory

In January 2018, a group of leaders of BEHL visited the Wuhan factory of BEHET to express gratitude to front-line employees. Through this trip, leaders had a close understanding of the working and living conditions of front-line employees. They inquired about the implementation of protective measures and presented gifts to employees to recognize their efforts and contribution, and enhanced their sense of belonging.

*Initiated a crowd-funding activity to help employees with difficulties to tide over difficulties by raising funds for surgery.*



## Creating a Warm Atmosphere

Concerned about employees with difficulties, the Company makes charitable donations on a regular basis. In 2018, BEHET and BE Water labor unions respectively initiated a crowd-funding activity to help employees with difficulties to tide over difficulties by raising funds for surgery.

Every year, the Company organizes all employees to take physical checkups and pays supplementary medical insurance for employees. We set up fitness centers and yoga classes to enhance physical fitness of employees. Such activities as birthday parties, fun sports games, speech contests, etc. are organized to promote cooperation and exchange between employees and to create a warm working atmosphere.





## In 2018

### March

Hunan Hengxing Environmental Technology Development Co., Ltd., affiliated to BE Environment, organized all employees to participate in tree planting activities, which on the one hand, enhanced employees' awareness of "responsibility for afforestation", and on the other hand, promoted cooperation and bond between employees.

### April

Wuhan Borui Environmental Protection and Energy Development Co., Ltd. of BEHET and Wuhan Municipal Office of Solid Waste Management jointly organized a campaign with the theme of "Our Tomb-Sweeping Festival: National Defense Education to Promote Patriotism", which organized employees to visit the National Defense Education Center and the Wu Yunduo Memorial Hall to commemorate the revolutionary martyrs.

### May

Shuangqi Environmental Protection Co., Ltd., affiliated to BE Environment, held a series of activities under the theme of "Inheriting Shuangqi Spirit, Establishing Environmental Protection Concept, and Promoting Youth Energy" such as the "May 4th" Youth Day speech contest, jumping rope competition, photo contest, tree planting, etc.

### September

BEHET offered oil painting experience with the theme of "Time Calls for Youth to Create a Better Future" to deliver good aspirations via art.

### November

BE Water launched the first "Changqing Cup" Employee Skills Competition. Around theoretical knowledge and practical skills, the competition was divided into three parts: water supply pipeline network leak detection, sewage water quality test, and operation in limited space. Employees' enthusiasm was unleashed by learning while playing.

# 04



## Harmonious Community

Over the years, BEHL has always been upholding the core values of “dedication, sharing and respect”. Combining the Company’s business model and characteristics, we dedicate to turn ourselves into a driving force which leads the progress of all stakeholders and the society. The Company respects and protects the rights of community residents, assumes social responsibilities and creates social value. In 2018, the total amount of BEHL’s donation was appropriate HK\$3 million.

### 1 POVERTY ALLEVIATION



- Donating money to college students in financial plights and children from less developed areas through public welfare fundraising activities
- Raising charity fund through “On the Way•BEHL” fund-raising walkathon
- In 2018, the total amount of donations reached HK\$3 million

### 3 GOOD HEALTH AND PUBLIC SERVICE

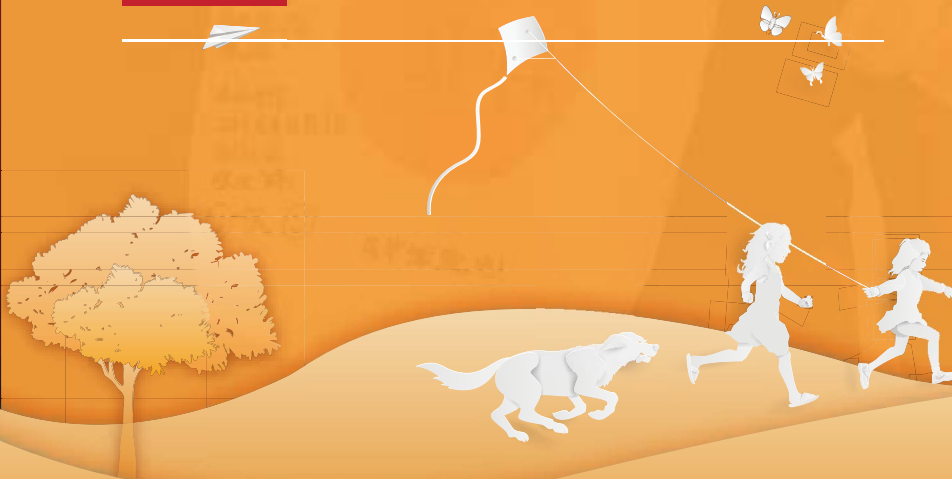


- “Seed Plan” encourages more teenagers to engage in football games
- Caring for children with special education needs in cooperation with NGOs
- Organizing volunteer teams and carrying out volunteer activities for the elderly
- Calling for reducing food waste

### 4 HIGH-QUALITY EDUCATION



- “On the Way•BEHL” Green Seeds Project boosts environmental education
- Establishing environmental education bases with BEHL characteristics







# Supporting Social Development

Over the years, BEHL has been incorporating “public services” into its development gene:

The Company has founded and manages the public service platform and brand – On the Way•BEHL, promotes environmental protection education; through “Green Seeds Project”, makes donations through fund-raising walkathons.



The Company initiated the Mingxi Charity Foundation Association and serves as the chairman company. The Association intends to encourage communication and development of the youth from Beijing and Hong Kong through carrying out youth exchange activities, supporting youth innovation and entrepreneurship activities and providing student scholarships.

As a founding member of Society of Entrepreneurs and Ecology SEE Conservation, the Company spares no effort to protect environment in cooperation with many large enterprises.



BEHL forges philanthropic brand for environmental protection, carries out sports and environmental protection activities with BEHL characteristics, and vigorously supports society’s development.



## Yanjing Brewery “Seed Plan” Program Boosts “Everyone Engagement in Football”

2018 is the fifth year that Yanjing Brewery has sponsored the “Seed Plan” activities launched by Chinese Football Association. Yanjing Brewery, along with Chinese Football Association and other sponsors, carry out “Seed Plan on Campus” activities in which football players, coaches, referees and media reporters exchange and interact with school teachers and students, so as to encourage students to get involved in sports. Based on the national sporting event platform of Chinese Football Association, Yanjing Brewery donates footballs to children in poverty-stricken schools and schools with football tradition in areas where the football games are held. As of the end of 2018, “Seed Plan” program has altogether donated 33,100 footballs to 1,600 secondary schools and primary schools across China.

This philanthropic activity has been honored

“CSR China Education Award” jointly initiated by many institutions and supported by units including the School Department of Central Committee of the Communist Youth League, Ministry of Education and Ministry of Industry and Information Technology, which is the only official award in the field of education in China

“Social Responsibility Award” by Chinese Football Association





“On the Way • BEHL” Green Seeds Project

On November 1, 2018, “On the Way BEHL” Green Seeds Project was officially launched. Combining its professional competence, this environmental protection education public welfare project focuses on “garbage classification” and “water treatment”, and integrates the universal environmental protection curriculum developed by BEHL into the nature education of school-based curriculum sequence in the urban and rural primary schools, and use the fun experience learning as a means to popularize environmental protection knowledge.

On the launch day, BEHL and our staff volunteers carried out a 2-day environmental protection volunteering teaching activity in Laishui Primary School in Laishui County, Chengde City, Hebei Province. Volunteers held a theme class meeting on “Who am I” and shared their views on environmental protection with students. Through two vivid practice courses of “Water Resources on the Earth” and “Where Are Our Garbage Going”, students gained a deeper understanding of the concept of “environmental protection”; they also organized relay runs with garbage delivery to help deepen students’ understanding of garbage classification.

In the same year, school-based environmental protection courses developed by BEHL have been popularized. 3,808 students in 53 schools experienced interesting environmental protection education.



Number of students experienced interesting environmental protection education

3,808



Based on BEHL, Creating Characteristic Environmental Protection Education

Harbin Shuangqi Environmental Resources Using Co, Ltd. under BE Environment has built bridges and bonds among governments, enterprises, social groups, colleges and citizens and enhanced the public’s concepts and cognition of garbage classification through the construction of seven bases including practice base for college students, research base for scientific research institutes, leisure and fitness base for citizens, education base for primary and secondary school students, national waste incineration test base in cold zone, visiting base for industrial tourism and personnel training base. In 2018, Harbin Shuangqi Environmental Resources Using Co., Ltd carried out public activities on April 22 World Earth Day and June 5 World Environment Day, in which students and lecturers from Heilongjiang University of Science and Technology, Northeast Agricultural University, Northeast Forestry University, Harbin Polytechnic University and Harbin Commercial University came to visit and participated in the exchange activities.





# Practicing Volunteer Service

In 2018  
The total hours spent on public welfare activities

**1,600** hours



## Mingxi Volunteer Team Vigorously Carries Out Love & Care Activities

In order to better give back to the society and establish a platform for member enterprises to fulfill their social responsibilities, Mingxi Charity Foundation Association set up an affiliation organization – Mingxi volunteer team, which consists of employees from subsidiaries and Mingxi alumni. As of the end of 2018, 300 volunteers have participated in voluntary activities which benefited over 700 people in need.



On February 3, May 26 and September 22, 2018, nearly a hundred volunteers from Mingxi volunteer team participated in public welfare activities themed “caring for senior citizens, visiting with love” around Hong Kong. Volunteers were splitted into teams and visited solitary senior citizens door to door, sent greetings to them on the eve of the Spring Festival, the Dragon Boat Festival and the Mid-Autumn Festival. Fong Wong Wun Tei Neighbourhood Elderly Center, a subsidiary of Chung Sing Benevolent Society, issued a certificate of thanks to the Association and BEHL for their strong support to philanthropic activities of caring for and respecting the senior citizens.

On October 21, 2018, Mingxi Volunteer Team members participated in the 8<sup>th</sup> “Walking with Lingnanians Fundraising Walkathon”, raising funds for university development and donate money to students with family financial difficulties, especially for students who are the first generation of college-educated in the poverty-stricken families.





### Caring for SEN children together with Distinctive Learning Society

Hong Kong Distinctive Learning Society is a charitable NGO which offers free and professional service to children with special educational needs (SEN children) and their parents. In 2018, BEHL sponsored 50,800 RMB to the Society and organized a group of 30 volunteers to set up “BEHL SEN volunteer team” to provide professional assistance to these families with SEN children in their early childhood and primary school.



BEHL's donation to Hong Kong Distinctive Learning Society

**50,800** RMB



### Active Participation in Sowers Action, Raising Money for Students in Poverty-Stricken Mountain Area

On October 21, 2018, BEHL participated in annual Sowers Action – a challenge of 12 km, 26 km and 42 km charity cross-country marathon in 12 hours. The Action calls on the whole society to stick together to care for poor school children. Fund raised during the Action has been used to support students in poverty-stricken mountainous areas in the Mainland. BEHL has participated in the Action for three consecutive years, and donated HK\$93,760 in 2018.



BEHL's donation to student fund raising charity

**93,760** HK\$



Blood donation campaign initiated by China Gas

**8** times



Number of people donated blood

more than **2,000** person-times



Cumulative blood donation

**300,000** ml



Number of people donated blood from Changde Zhonglian Environmental Protection Power Co., Ltd.

**15**



Total blood donation

**4,500** ml



### Carrying Out Voluntary Blood Donation Activities among Employees

On August 8, 2018, China Gas, Shenzhen Blood Center and Shenzhen China Travel United Property Management Co., Ltd. jointly organized the "China Gas 2018 Blood Donation Activity". This is the eighth blood donation campaign initiated by China Gas, which has cumulatively attracted the participation of 2,000 person-times and received a total of 300,000 ml blood donation.



On August 27, 2018, Changde Zhonglian Environmental Protection Power Co., Ltd. of solid waste treatment business organized a voluntary blood donation campaign. Employees enthusiastically participated, of whom 15 successfully passed the preliminary examination before blood collection and donated a total of 4,500 ml blood.







### Volunteer Activities on Reducing Food Waste

On June 1, 2018, BEHL Hong Kong Headquarters organized employees to participate in the voluntary activity "Food Angel". Food Angel is a food rescue organization launched in 2011 by Bo Charity Foundation. Food Angel rescues edible surplus food from different sectors of the food industry that would otherwise be disposed of as waste. Following strict safety protocols, the rescued food items will then be prepared as nutritious hot meals in the central kitchen and redistributed to serve the underprivileged communities in Hong Kong.

This event successfully awakened everyone's concern about food waste. Volunteers responded to the purpose of "stopping waste, solving hunger, connecting with love" and participated in practical actions.



Volunteers attend lectures and learn about food waste problems in Hong Kong



Volunteers prepare food ingredients in central kitchen



Volunteers make meals together in central kitchen



Volunteers count meal boxes and put them in order

## Outlook for Future

2019 is a crucial period for BEHL to promote breakthroughs in reform and innovation while adhering to high-quality development. We will consistently uphold our development philosophy and spirit, carry forward our excellent corporate culture, and make persistent efforts to create greater value for stakeholders and achieve our corporate vision of "responsibility, strength and trustworthiness".

Looking into the future, we will externally integrate superior resources, introduce innovative technologies, and actively implement national and regional development strategies, and internally continue to optimize operations, improve quality and efficiency to achieve leapfrog growth. At the same time, we will stick to our original goal by continuously playing an active role in social development and environmental protection and making unremitting efforts to create a better life.



## Social Responsibility Performance

Key Performance	2017	2018
Revenue (billion in HK\$)	57.51	67.76
Basic earnings per share (HK\$/share)	5.45	6.00
Greenhouse gas emissions (10,000 tons of CO <sub>2</sub> e)	63.3	125.3
Greenhouse gas emissions per HK\$10,000 of revenue (kg/HK\$10,000)	110.1	185.0
Energy consumption (10,000 tons of standard coal, including: coal, electricity, nature gas, gasoline and diesel)	20.5	39.0
Energy consumption per HK\$10,000 of revenue (kg/HK\$10,000)	35.6	57.6
Fresh water consumption (10,000 tons)	937.1	2,231.6
Fresh water consumption per HK\$10,000 of revenue (kg/HK\$10,000)	1,629.5	3,293.4
Hazardous waste emissions (10,000 tons)	38.4	47.0
Hazardous waste emissions per HK\$10,000 of revenue (kg/HK\$10,000)	66.8	69.3
Non-hazardous waste emissions (10,000 tons)	181.9	234.7
Non-hazardous waste emissions per HK\$10,000 of revenue (kg/HK\$10,000)	316.3	346.4
Total number of contracted employees	46,053	41,751
Employee training hours	461,573	1,701,650
Percentage of employee physical examination (%)	100	100
Number of suppliers	2,107	1,641
Donation (HK\$)	7,000,000	3,000,000

The statistics are based on consolidated statements, excluding China Gas and BE Water.

2017: Yanjing Brewery statistics of environmental indicators (greenhouse gas emissions, energy consumption, fresh water consumption, hazardous waste emissions, and non-hazardous waste emissions) are limited to Beijing area; fresh water consumption statistics do not include EEW GmbH.

2018: Yanjing Brewery statistics are full-caliber and full-coverage data; Fresh water consumption statistics do not include EEW GmbH.

# HKEx ESG Index

Issues	KPI	KPI Description	Locations in the Report
<b>A: ENVIRONMENT</b>			
A1 Emissions	General disclosure	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.	
	A1.1	The types of emissions and respective emissions data.	
	A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P38-P39
	A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	P44-P47
	A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	
	A1.5	Description of measures to mitigate emissions and results achieved.	
	A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved.	
A2 Use of resources	General disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	
	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).	
	A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility).	P40-P43
	A2.3	Description of energy use efficiency initiatives and results achieved.	
	A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	
	A2.5	Total packaging material used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	
A3 Environment and natural resources	General disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	
	A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	P38-P40
<b>B: SOCIETY</b>			
B1 Employment	General disclosure	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.	P50
	B1.1	Total workforce by gender, employment type, age group and geographical region.	P54
	B1.2	Employee turnover rate by gender, age group and geographical region.	
B2 Health and safety	General disclosure	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.	
	B2.1	Number and rate of work-related fatalities.	P32-P34
	B2.2	Lost days due to work injury.	
	B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	

Issues	KPI	KPI Description	Locations in the Report
B3 Development and training	General disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	P51-P53
	B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	
	B3.2	The average training hours completed per employee by gender and employee category.	
B4 Labor guidelines	General disclosure	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.	P50
	B4.1	Description of measures to review employment practices to avoid child and forced labor.	
	B4.2	Description of steps taken to eliminate such practices when discovered.	
B5 Supply chain management	General disclosure	Policies on managing environmental and social risks of the supply chain.	P35
	B5.1	Number of suppliers by geographical region.	
	B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	
B6 Product responsibility	General disclosure	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.	P14 P27 P31
	B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	
	B6.2	Number of products and service related complaints received and how they are dealt with.	
	B6.3	Description of practices relating to observing and protecting intellectual property rights.	
	B6.4	Description of quality assurance process and recall procedures.	
	B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	
B7 Anti-corruption	General disclosure	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.	P22-P23
	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.	
	B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	
B8 Community investment	General disclosure	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.	P10 P56-P63
	B8.1	Focus areas of contribution (e.g. education, environmental concerns, labor needs, health, culture, sport).	
	B8.2	Resources contributed (e.g. money or time) to the focus area.	

# Feedback

Dear readers:

Thank you for reading 2018 CSR Report of Beijing Enterprises Holdings Limited. We attach great importance and look forward to your feedback on BEHL's management, practice and report related to social responsibility. To further improve our work and make the next report better meet your expectations, we hope that you will give feedback and suggestions in the following aspects.

## Please Answer Following Questions By Marking "v"

1. Do you think the Report can reflect the significant impact of BEHL on the economy, society and environment?

Very much       Average       Very little

2. Do you think the analysis of relations between stakeholders identified in the Report and BEHL is accurate and complete?

Very much       Average       Very little

3. Do you think the information in the Report is complete?

Very much       Average       Very little

4. Do you think the information in the Report is readable?

Very much       Average       Very little

## Open-ended Question

Please write down your comments and suggestions on BEHL's social responsibility practices and report.



## Your Contact Information

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