



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

(Stock Code 154)



ENVIRONMENTAL,
SOCIAL AND
GOVERNANCE REPORT

2019

ABOUT THE REPORT

Beijing Enterprises Environment Group Limited (the “Group”) is pleased to present the 2019 Environmental, Social and Governance Report (the “Report”). The Report covers our approach and performance in addressing significant environmental, social and governance issues from 1 January 2019 to 31 December 2019.

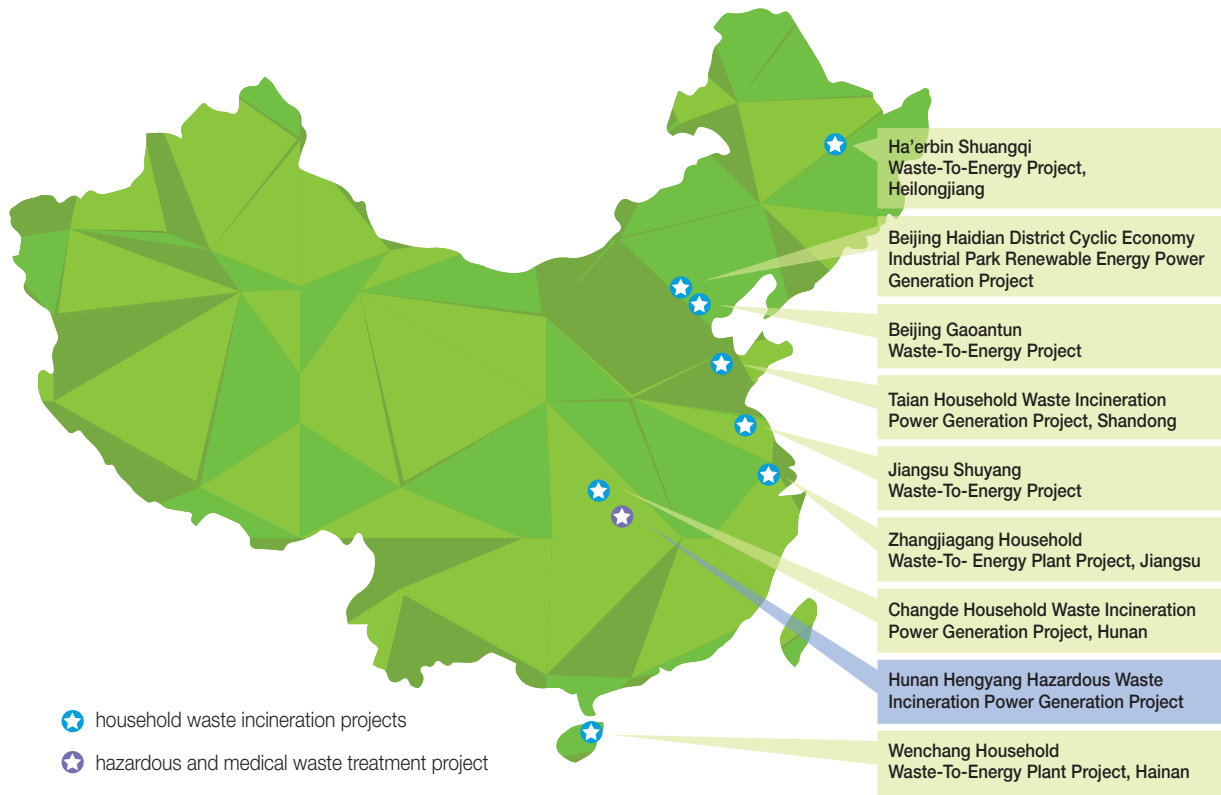
The Report has been prepared with reference to the “Environmental, Social and Governance Reporting Guide” recommended by The Stock Exchange of Hong Kong Limited (“Hong Kong Stock Exchange”) to all Hong Kong listed companies. A detailed Hong Kong Stock Exchange content index has been appended to the Report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

The Group

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

As a member of Beijing Enterprises Holdings Limited (“BEHL”, stock code: 392) with focus on the environmental protection industry, the Company has committed itself to the environmental protection and solid waste treatment industry since 2014, and changed its company name to “Beijing Enterprises Environment Group Limited 北京控股環境集團有限公司” on 22 July 2016. At the end of October 2016, the Group completed the acquisition of five household waste incineration projects and one hazardous and medical waste treatment project from BEHL. These projects are located in major cities or provincial capital of the PRC and have a track record of grate furnace technology and a talented and seasoned management team. The acquisition was a valuable opportunity for the Company, and develop the Company into one of the leading companies in solid waste treatment industry in Mainland China.

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



Projects

Household waste incineration projects

Acquired in 2014:

- Shandong Taian Project
- Hunan Changde Project

Acquired in October 2016:

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

Operated in 2018:

- Beijing Haidian Project

Hazardous waste and medical waste treatment project

Acquired in October 2016:

- Hunan Hengxing Project

Processing capacity

- 1,200 tonnes per day
- 1,400 tonnes per day

- 1,600 tonnes per day
- 1,600 tonnes per day
- 900 tonnes per day
- 1,200 tonnes per day
- 225 tonnes per day

- 2,100 tonnes per day

- 35,000 tonnes per annum

ENVIRONMENTAL

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

Through enhancing environment-friendly production management, the waste treatment plants of the Group have reached top industrial level in terms of emission, safety and reliability. In 2019, our focus was to carry out environmental production review works. Acting in accordance with the key implementation plan for energy saving and emission reduction, we improved power unit operation efficiency, controlled coal usage ratio (the fluidized bed project) and restricted exhaust gas emission to meet corresponding standards, and had effectively kept the total emission far below the environmental impact assessment approval. Slags were disposed of at landfills or utilised as building materials safely according to the franchise requirements, and ashes were transported to cement plants for disposal according to the hazardous waste disposal requirements or safely disposed of at landfills after chelation and stabilization. The Group abided by the “Pollution Control Standards on Incineration of Household Wastes” (GB18485-2014), “Pollution Control Standards on Incineration of Hazardous Waste” (GB18484-2001) and other relevant environmental protection laws and regulations, and assured the solid waste incineration burnout rate and achieved up-to-standard discharge of flue gas under the premise of stable production operation, and thus truly achieved the purposes of reduction and harmless incineration treatment.

In 2019, the Beijing Haidian Project adopted a number of energy-saving and emission-reduction measures in accordance with the “Energy Conservation and Emission Reduction Management System” to integrate with its actual production operation, such as, the roots blower in the sewage plant were replaced with a magnetic suspension blower and had improved the aeration effect, and it also reduced electricity consumption of approximately 1.57 million kWh annually. The three class-A evaporators and soot-blower furnaces were transformed and had improved the soot-blowing effect, reduced the frequency of furnace shutdown due to ash accumulation in the evaporator, and extended operating time, saving 101.25 tonnes of diesel and 4,400 litres of acetylene gas annually. The transformation of fixed drainage can recover 1,000 tonnes of hot water annually. In addition, the Company strengthened the inventory management and operation adjustment of garbage pool and improved maintenance standards, and achieved safe, environmentally-friendly, stable and cost-effective production throughout the year.

Beijing Beifa Ecological Construction Co., Ltd. actively promoted the philosophy of protecting the environment, conserving energy and green offices, and has adopted various measures in conserving electricity, water, office supplies, and vehicles. For examples: all lighting lamps in the office area were equipped with energy-saving light bulbs, and depends on the level of sunny weather and number of staff in the office, arranges special personnel to adjust the number of lighting lamps on a daily basis. The temperature and number of air conditioners operating will depend on the meteorological temperature and personnel work location distribution. The Company implemented an OA collaborative office system in April and promotes paperless office online to reduce the use of papers and make full use of secondary paper in office. We control water for office and domestic use. For office vehicle management, we eliminate old vehicles restricted by the state due to the failure in meeting environmental protection standards and replace them with electric energy vehicles and vehicles meeting the national environmental requirements. Meanwhile, we strengthen the review of corporate office vehicle and encourage employees to take public transportation when traveling to work.

Set out below are the operating statistics and emissions of the Group for 2019 and 2018:

	2019	2018
Operating statistics:		
Power generation	1,189,855,000 kWh	1,078,011,000 kWh
Waste processing volume (including medical and hazardous waste)	3,505,000 tonnes	3,496,000 tonnes
Electricity consumption	213,474,000 kWh	190,494,000 kWh
Water consumption	5,027,000 tonnes	4,013,000 tonnes
Diesel usage	2,768,000 litres	1,876,000 litres
Coal usage	71,000 tonnes	104,000 tonnes
Emissions:		
Ash	120,000 tonnes	113,000 tonnes
Slag	697,000 tonnes	629,000 tonnes
SO ₂	177,000 kg	116,000 kg
NO _x	1,485,000 kg	1,087,000 kg
Exhaust emissions	12,805 million m ³	8,060 million m ³

SOCIAL

The Group's employees

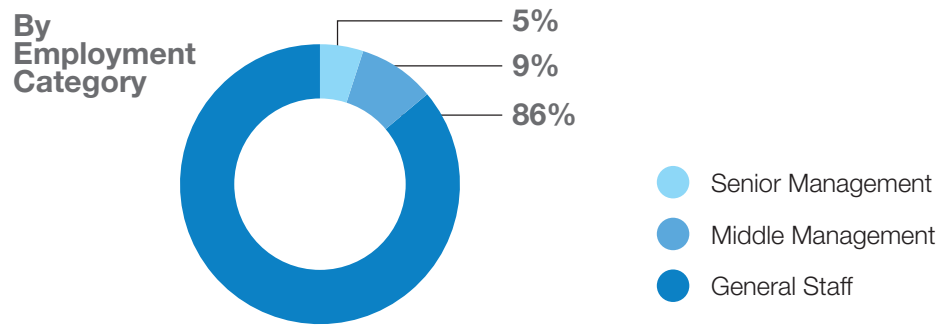
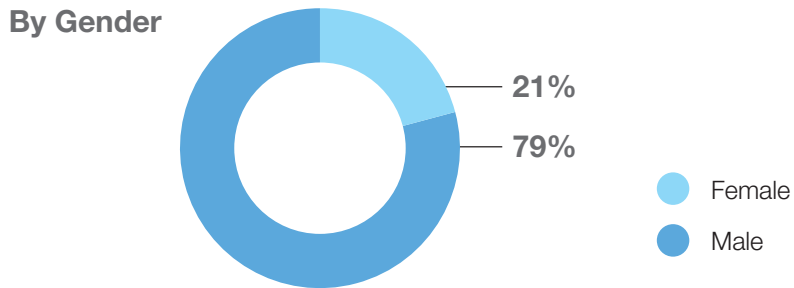
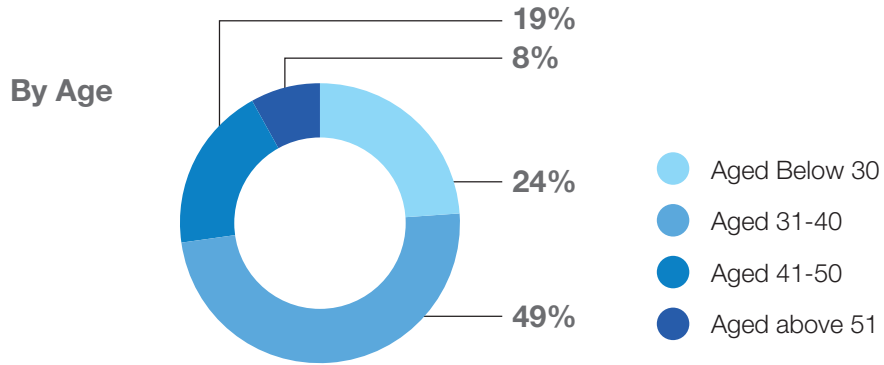
We aspire to build the Group into a happy and encouraging family, maintain people-oriented, foster harmonious labour relations, and guarantee employees' basic rights. The Group strictly complies with the provisions of labour laws such as the Labour Contract Law, adheres to the principle of fair employment,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

As at the end of 2019, the Group had 1,246 employees, including 260 female employees (of which 66 of them held managerial positions). The employee turnover rate was less than 12%.

On 14 August 2019, an intoxication and suffocation accident occurred in the Beijing Gaoantun Project, which led to 1 fatality and 2 casualties. According to the requirements of laws and regulations in relation to safety production, the investigation unit had determined that the incident was a general production safety liability accident. The Company has made compensation to those who died or were injured and punished liable persons in varying degrees. After the incident, Beijing Gaoantun Project will strengthen the supervision and inspection of the work site of the Company to timely identify and eliminate all kinds of safety hazards at work site, so as to prevent similar incidents from happening again. We will strengthen the professional training and emergency drills on accidents of employees in strict compliance with the requirements of relevant laws and regulations, and urge employees working at site to implement the established safety operation rules and regulations stringently, so as to prevent the occurrence of "three violations" by staff at work; upgrade and improve the workplace where the accident occurred, as well as related equipment and facilities in terms of process and design to achieve intrinsic safety at the workplace.

According to the working days calculated based on the "Standards on Lost Days Due to Work Injury" (GB/T15499-1995), there were 6,068 lost days in total in respect of the above work injury accident. Save as disclosed above, there were no other material work-related accidents of the Group in 2019.

Number of employees by employment category, age and gender



Training and development

The Group values employee training and offers training programmes with multiple forms and levels, covering a broad range of contents. Such programmes allow us to train our talents in a targeted manner. In 2019, the Group organised internal and external training courses (including job related, occupational health and safety and other training). Employees received 31,300 hours of training on a person-time basis with an average of 25.1 hours per employee. The Group adheres to the principle of equal pay for equal work regardless of gender. We promote internal talent cultivation, tap into internal human resources and facilitate internal transfer and dissemination of know-how. We also focus on employees' performance and have increased the performance-related pay of key employees.

Number of training participants and training hours

	Senior management	Middle management	General staff	Total
Training hours (hour) (Note)				
Occupational health and safety	527	1,123	24,170	25,820
Work related	58	1,409	4,013	5,480
Total training hours of employees	585	2,532	28,183	31,300
Number of staff	58	111	1,077	1,246
Average training hours (hour)	10.1	22.8	26.2	25.1

Note: Training hours per session x total number of participants



Beijing World Horticultural Exposition Voluntary Activities
(北京世園會志願者活動)

Health and safety

The Group has upheld “safe development”, and adhered to the principle of “putting safety first via early prevention as well as comprehensive rectification”. It has improved the three-level network for safety management, implemented safe production responsibility system, and carried out comprehensive safe production management to uplift the overall on-site management level. With a special focus on safety training, the Group aims to strengthen the safety awareness among all staff. It has also carried out regular, ad hoc and, seasonal equipment debugging and renovating works to eliminate unsafe behaviour of employees, unsafe conditions of objects, and unsafe environmental factors. During the whole year, there have been no major fires or serious environmental pollution. Hunan Changde Project has been rated as the “Safe Production Advanced Unit” by the safety supervision department of Changde Economic and Technological Development Zone for consecutive seven years, and has been granted the title of “Fire Safety Advanced Unit” at the municipal level for several times. Shandong Taian Project was awarded the qualification of the secondary enterprise of power safety production standardization and the honorary title of “Safe Production Advanced Unit” in Shandong Province.



Safety Training

Anti-corruption and supplier management

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

The suppliers of the Group, which are primarily based in the PRC, mainly supply coal and other raw materials and provide construction services. The distribution model allows us to support and promote local economic development in the course of procurement. For the purpose of enhancing strategic supply chain management, the Group conducts cost analysis on the supply chain every year. In 2019, the contract amount of the largest supplier accounted for 4% of the total purchases, while the top five suppliers accounted for 15% in aggregate.

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

Community

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

The Beijing Haidian Project is responsible for the daily household waste treatment in Haidian district since its commercial operation. For closed-loop garbage trucks that departing from the transfer station and the community, they enter into waste treatment plants in an orderly manner to solve not only the waste treatment problem of people living in Haidian district, but also beautify the living environment in the villages, towns and districts, and thus have earned the recognition and support from community residents and government agencies nearby. In 2019, it received government authority, teachers and students from Tsinghua University, primary and middle school students and other people from all walks of life of about 916 visitors. The Beijing Haidian Project has been included in the second-batch of national environmental practice unit that are open for public, and it opens to the public regularly on Wednesday afternoon of every second week of the month to educate visitors on the knowledge of waste treatment in a non-hazardous, reusable and resources application manner, garbage sorting and environmental protection, and promote public awareness to protect the environment and practise their own garbage sorting behaviours, so as to contribute efforts in building a beautiful environment in Beijing.

In 2019, Beijing Gaoantun Project continued to open to the public in accordance with the requirements of the Notice on the Opening of Domestic Waste Disposal Facilities to the Public (《生活垃圾處理設施對外開放通知》) issued by the Municipal Administration and Environment Commission (市政市容委). In 2019, it received a total of 129 visits (4,714 people in total), including 39 government department visits (1,093 people in total) and 90 public and institution visits (3,621 people in total). In 2019, through the detailed introduction of the production process and key technical parameters of the incineration plant by our guides during the opening to the public visit in receiving people from various industries, social and government departments, it had improved public understanding of incineration plant and their awareness of environmental protection. At the same time, the management of the software and hardware of the Company's facilities were improved, making due contributions as an enterprise in the district for constructing a nationwide demonstration circulating economic industrial park in Chaoyang District.

In 2019, Beijing Beifa Ecological Construction Co., Ltd. made independent investment to undertake the construction of a sewage treatment project in Anwa Village, Qutun Town, Zhenping County, Nanyang City, Henan Province, to support the poverty alleviation project of the local government. The treatment capacity of the project is 30 tonnes per day. The major projects include the construction of sewage pipeline network, sewage collection and sewage treatment of nearly 200 rural households in Anwa Village. The quality requirements of treated water shall meet the first class-A graded standard of the Pollutants Emission Standards of Urban Sewage Water Treatment Plant (GB18918-2002). The project improved the local rural living environment as well as the construction of rural ecological civilization, and was listed as a model project of beautiful village and targeted poverty alleviation by the Zhenping County government.



Yixing Beikong Green Seed Program

The Ha'erbin Shuangqi Project provides professional narrators in public showrooms for green education. Several educational facilities with sound, light and power effects are newly added, so as to achieve a new promotion pattern on environmental protection with all-round and three-dimensional features. Thus, it has become an important window for promoting non-hazardous waste treatment and environmental protection knowledge in the three northeastern provinces in China, namely Liaoning Province, Jilin Province and Heilongjiang Province, with visitors increasing year by year. In 2019, it received delegations from government authorities, industry-peer visiting groups, college internship teams, foreign visitors and people from all walks of life of over 2,000 visitors in total. Looking into the future, the Ha'erbin Shuangqi Project has actively furnished college students with internship opportunities and offered visiting bases to primary and middle school students with its current resources, and established cooperation with around 10 universities and colleges as well as primary and middle schools and research and learning institutions in the province to provide resources for social talents training on one hand and achieve resource-sharing on the other hand, with its view to optimise regional talent structure as well as its philosophy in serving the society.

The Jiangsu Zhangjiagang Project positively demonstrates to the society about its new image as an environmentally-friendly enterprise and as an open educational base, it welcomes public visits anytime for environmental protection purpose. The Company receives a large number of visitors from the delegation teams led by the CPPCC, NPC and government agencies, university students and primary and middle school students as well as people from all walks of life and foreign visitors. The Company undertakes its social responsibility vigorously by integrating into the nearby project-based communities and participating into the nearby community events, fulfilling village and enterprise co-construction, so as to improve the green environment in neighbouring communities. We adhere to the "people-oriented" principle by giving priority in terms of employment and development opportunities to nearby residents.



Student visits

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

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

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

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

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