

2019

Environmental
Governance

ABOUT THIS REPORT

This is the environmental, social and governance report of Harbin Electric Company Limited (the “Company”) and its subsidiaries for the year ended 31 December 2019.

Actively realizing its environmental responsibility of “Friendly Environment, Warm Home”, the Company strives to create an environment-friendly, harmonious, warm and home-like enterprise; pursues the friendly coexistence between people, people and nature, people and society; creates a good internal atmosphere of understanding, trusting and caring people; and creates an external environment of close cooperation between nature and human. In 2019, the Company conscientiously implemented national energy conservation and environmental protection laws and regulations. Control of pollutant emissions, conservation of resources, and usage of natural resources were in compliance with laws and regulations. No environmental protection accidents occurred throughout the year.

Focusing on the core values of “unite in a concerted effort, strive in a gathering strength”, the Company adopts people-oriented approach, builds harmonious labor relations, strengthens occupational health protection and continuously improves salary distribution system, so as to fully protect employees’ legitimate rights and interests. It strengthens supply chain management, fulfills product responsibilities, promotes the sustainable and healthy development of the enterprise by fulfilling social responsibilities and meeting customer satisfaction, and takes into account the interests of all interested parties to the maximum extent. It actively carries out investments in community and anti-corruption to maintain regional stability and promote community harmony. In 2019, the Company safeguarded the legitimate rights and interests of employees, paid attention to occupational safety, and actively maintained community stability. During the year, the Company had no substantial product quality incidents, no negative news of community responsibilities and no corruption lawsuits occurred.

The Company has been actively enhancing its corporate governance structure and standardizing its operations. In 2019, the Company has seriously complied with code provisions set out in the Corporate Governance Code and Corporate Governance Report in Appendix 14 of the Listing Rules of the Stock Exchange of Hong Kong Limited and, where appropriate, adopted the recommended best practices as specified therein.

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I. ABOUT THE COMPANY

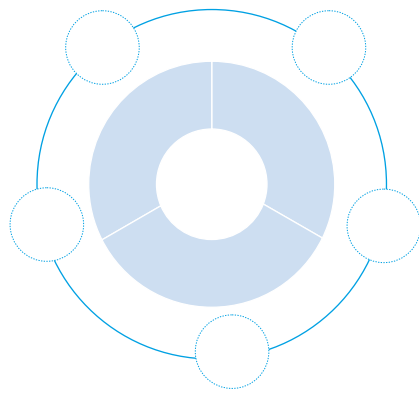
Harbin Electric Company Limited (the “Company”) together with its subsidiaries is one of the largest power generation equipment manufacturers in China, with more than 15,000 employees and an annual power generation capacity of 30 million kilowatts.

The Company has been always committed to the revitalization and development of China’s equipment manufacturing industry, and has actively promoted a new leap in China’s power generation equipment manufacturing level and independent innovation capability. Some of its technologies have met the international advanced level. Adhering to the concept of sustainable development, the Company continues to strengthen the development of high-efficiency clean energy and new energy power generation equipment to achieve the coordinated development of enterprise and environmental protection.

Based on the domestic market, the Company has developed a series of products with advanced technology and high reliability, which are widely used in power generation equipment.

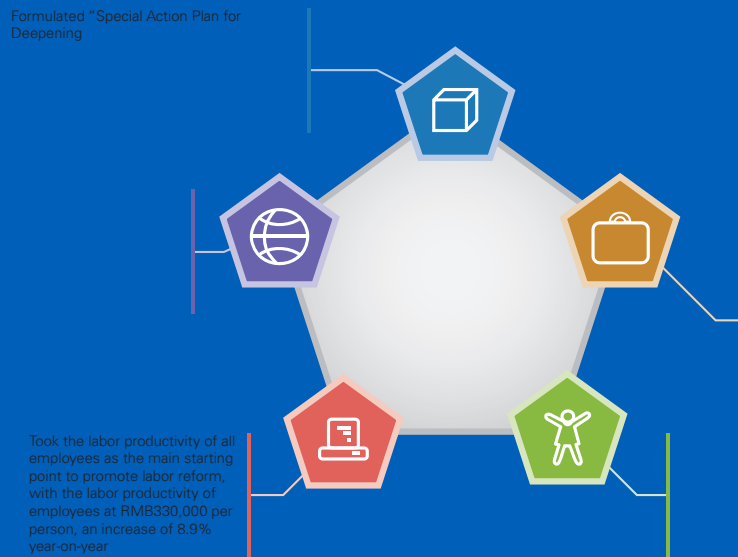
I. ABOUT THE COMPANY

2. SUSTAINABLE DEVELOPMENT MODEL



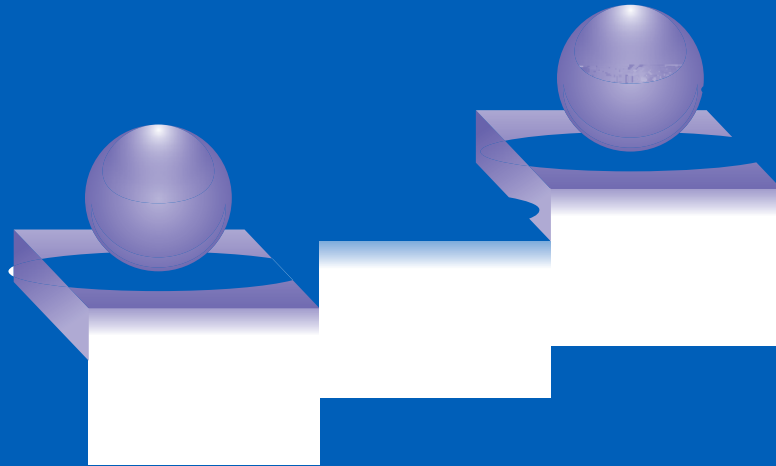
I. ABOUT THE COMPANY

In 2019, faced with the grim situation, the Company adhered to the goal of building a world-class equipment manufacturer with global competitiveness, drove reform and innovation, deeply implemented the Company's development strategy, fully promoted all key tasks, and solidly promoted the development of various businesses. The overall operation of the Company remained stable and achieved relatively good results. For the year ended 31 December 2019, the Company's operating income was RMB22,515.59 million and the net profit attributable to the parent company's owner was RMB106.17 million, a year-on-year increase of 48.88%. During the year, the Company realized RMB30.19 billion worth of duly signed contracts.

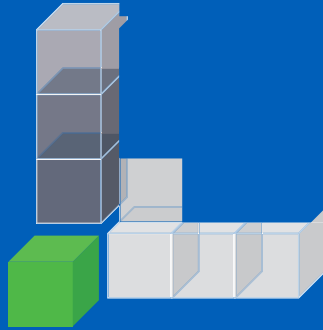


I. ABOUT THE COMPANY

Transformation and upgrading



II. ENVIRONMENT



II. ENVIRONMENT



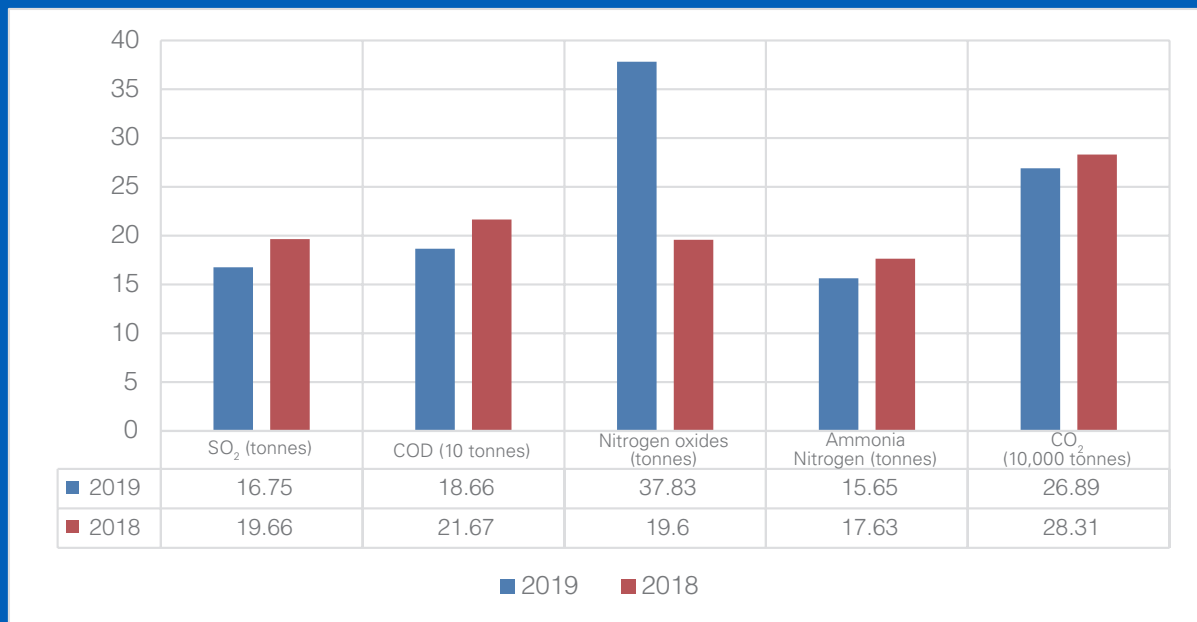
The first national biomass coupled power generation demonstration project contracted by Harbin Boiler Co., Ltd. - the demonstration project on coupled 20MW biomass power generation of Datang Changshan 660MW ultra-supercritical coal-fired generator unit successfully passes the 168-hour trial operation and performance evaluation test, and the parameters reach the design requirements. The pressurized straw gasification efficiency and system power consumption index reach a high level. The unit successfully passes the performance evaluation test, marking the success of the country's first biomass-coupled power generation demonstration project, filling the gap in the domestic biomass micro-positive pressure circulating fluidized bed gasification technology, and exploring the operating experience for different biomass fuel characteristics and the basic data of the ash and slag design of the rice straw briquette fluidized-bed gasifier, which lays a technical foundation for the national promotion of biomass-coupled power generation and also has a positive impact on the development and utilization of local biomass energy, environmental protection in the surrounding areas, and economic development.

II. ENVIRONMENT

The Company strictly follows the Environmental Protection Law of the People's Republic of China, the Comprehensive Work Program for Energy Saving and Emission Reduction in the 13th Five-Year Plan Period and other national laws and regulations, always concerns itself with environmental protection and works on energy saving and emission reduction, and has formulated the Management Measures Concerning Energy Saving and Emission Reduction, the Supervision and Management Measures of Solid Wastes and relevant mechanisms. We actively assume social responsibility to reduce water, air, waste and noise pollution.

In 2019, strictly complying with the national laws and regulations related to environmental protection, the Company achieved a 100% rate in the pollutant emission compliance. It also strictly controlled the total amount of emissions, with no environmental incidents occurred in the year. During the year, the Company carried out 17 energy-saving and emission reduction projects, with a total expense of RMB9 million.

The types of emissions of the Company mainly include sulfur oxides, nitrogen oxides, CO₂, etc. In 2019, the Company's SO₂ emissions were 16.75 tonnes, with a year-on-year decrease of 14.80%; COD emissions were 186.61 tonnes, with a year-on-year decrease of 13.89%; nitrogen oxide emissions were 37.83 tonnes, with a year-on-year increase of 93.12%; ammonia nitrogen emissions were 15.65 tonnes, with a year-on-year decrease of 11.22%; CO₂ emissions were around 268,860 tonnes, with a year-on-year decrease of 5.04%; and CO₂ per ten thousand Yuan output value were 0.18 tonnes. The Company's pollutant emissions complied with respective national standards.



Note: Due to the change in the statistical caliber of nitrogen oxides in the latest relevant statistical requirements, the nitrogen oxide emissions in 2019 have increased substantially year-on-year.

II. ENVIRONMENT

The Company has rigorously complied with environmental protection regulations regarding the generation declaration, transfer and disposal as well as contingency plan of hazardous wastes. It has standardized and enhanced the environmental management of hazardous wastes by engaging operators holding valid license for processing hazardous wastes and electronic wastes. In 2019, the aggregate amount of hazardous wastes produced by the Company was 2,437 tonnes with a 100% disposal rate. The Company reuses non-hazardous wastes adhering to the principle of making the most use of them, so it is difficult to measure the total amount by standardization.

The Company has always been paying close attention to the environmental protection issues. As the Company continued to put more effort on energy saving and emission reduction and strived for better protection of our environment, no environmental incidents occurred in 2019.

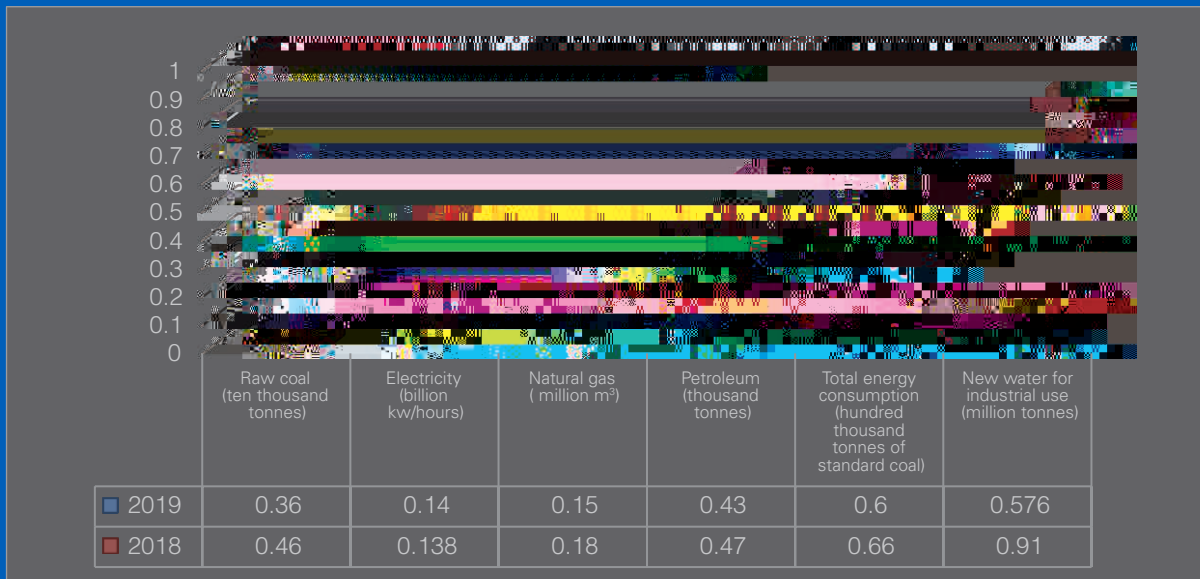
Focusing on the establishment of environmental management system and standardization of the management of hazardous wastes, the Company's subsidiaries firmly deal with and rectify any behavior which is not in compliance with relevant regulations and laws and inspects any potential environmental hazard. It controls the source of pollutant and strengthens specially on the management of major source of pollutant by installing online automatic monitoring equipment on the source of water pollutant. Environmental publicity and trainings have been actively carried out to raise the environmental protection awareness of our employees and form a sound atmosphere for protecting the environment.

II. ENVIRONMENT

The Company strictly abides by the PRC laws and regulations on resource conservation, has established “Energy Management System”, “Rewards and Punishments for Assessment of Single Major Energy Consuming Equipment”, “Measurement Management System”, “Energy Management System for Outer-ring Users”, and strictly implements the above-mentioned measures during our production process.

The major raw materials required by the Company are steels and non-ferrous metals. By continuously improving our designs and techniques to promote the utilization rate of materials, the Company’s utilization rate of major raw materials was 80% in 2019. The Company’s packaging materials vary with the size and transportation needs of our products, and mostly are disposable goods. Due to the high recycling costs, their consumption cannot be measured by standardization.

As regards energy consumption, in 2019, the Company consumed 3.6 thousand tonnes of raw coal, 139.56 million kw/hour of electricity, 14.58 million m³ of natural gas and 431 tonnes of petroleum, which were equivalent to a total energy consumption of 60,153 tonnes of standard coal, and the comprehensive energy consumption per ten thousand Yuan output value was 0.04 tonnes of standard coal, with a year-on-year decrease of 3.87%. The consumption of new water for industrial use was 576,004 tonnes and the water consumed per ten thousand Yuan output value was 0.39 m³ with a year-on-year decrease of 32.49%. There are no water sourcing issues as the water and resources used by the Company are industrial finished products and there is no significant influence on the natural resources. As headquarter is located in Harbin, the Company has access to abundant water and energy resources. Subject to energy saving and emission reduction as well as water saving, there are no other restrictions on the use of water and energy resources.



II. ENVIRONMENT

4. ENVIRONMENT AND NATURAL RESOURCES

The Company earnestly fulfilled its responsibility for energy saving and emission reduction, enhanced the internal management to further explore internal energy saving potential, and developed and promoted the implementation of rules and regulations including the Occupational Health and Safety Environmental Protection Management Scheme, the Energy Plan Outline of the Company and the Control Procedures for Environmental Management and Operation. We gave publicity to the national energy saving and emission reduction policy and promoted advanced experience and practical technology to popularize energy saving and emission reduction and form sound atmosphere within the Company; office automation system was used for file distribution, government review and approval and online application for vehicles to reduce carbon emission; measures such as turning off lights when leaving and saving water were taken to reduce energy consumption; besides, we followed “no vehicle day” activity and transported via rail as well as built Qinhuangdao Seaside Heavy Duty Workshop to reduce car exhaust emission. Also, environmental protection standards for technology of products and materials to be purchased would be clearly listed in the tender documents of the central procurement projects, which stipulate to give preference to products with efficiency label, green water-saving certification and eco-mark to effectively reduce the use of over-packaged and disposable goods. The Company had no non-compliance regarding environmental protection in 2019.

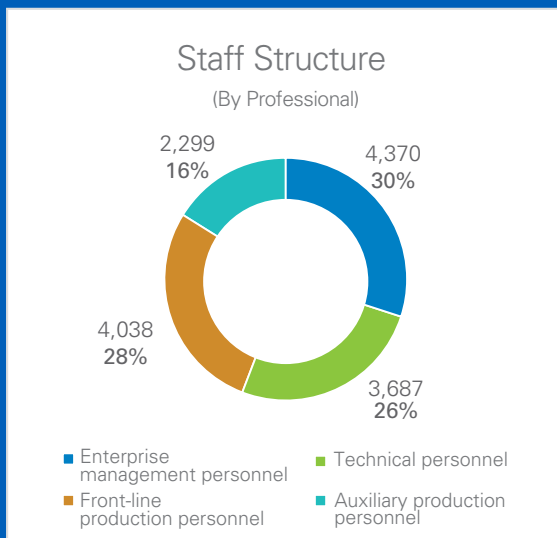


III. SOCIETY

The Company actively practices social responsibilities, creates more jobs, and realizes corporate social value. Focusing on the core values of “Concerted efforts, dedicated services”, the Company adopts people-oriented approach, builds harmonious labor relations, strengthens occupational health protection and continuously improves salary distribution system, so as to fully protect employees’ legitimate rights and interests. It strengthens supply chain management, fulfills product responsibilities, promotes the sustainable and healthy development of the enterprise by fulfilling social responsibilities and meeting customer satisfaction, and takes into account the interests of all interested parties to the maximum extent. It actively carries out investments in community and anti-corruption to maintain regional stability and promote community harmony.

In 2019, the Company consolidated its efforts to safeguard the legitimate rights and interests of employees, strengthened training and paid attention to occupational safety, encouraged innovation, enhanced monitoring, attached importance to services, and actively maintained community stability. During the year, the Company had no substantial product quality incidents, no negative news of community responsibilities and no corruption lawsuits occurred.

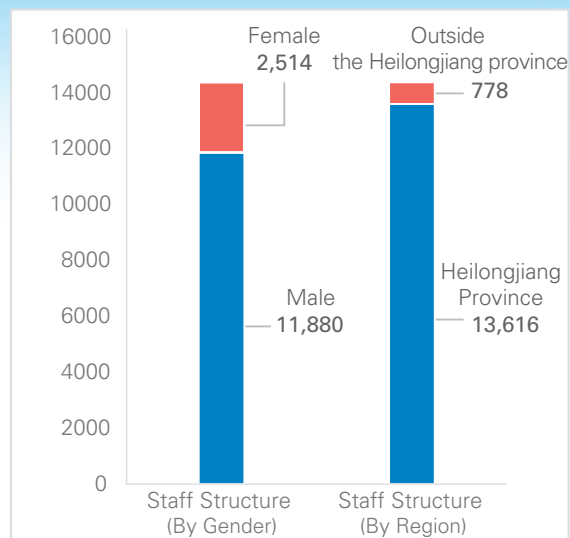
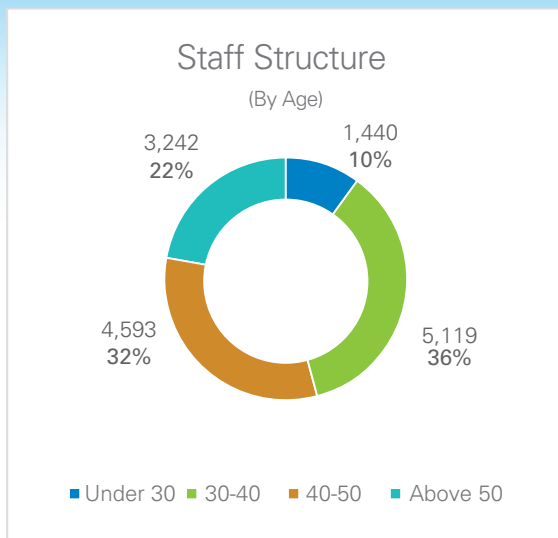
The Company implemented a working system of five days a week and eight hours a day. Staff are entitled to all holidays prescribed by the nation and local governments and are entitled to paid leaves ranging from 5 to 15 days depending on their years of service. Staff of the Company are entitled to “5 Insurances and 1 Pension” and other benefits. The Company has also established the corporate pension scheme to provide better guarantee for our staff.



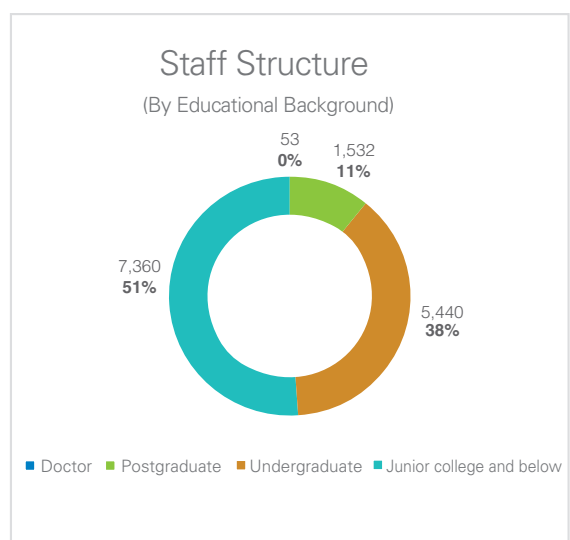
As of 31 December 2019, the total number of employees in the Company was 14,394, including 2,514 female employees, accounting for 17.5% of the total.

The number of the employees aged over 55 was 1,152, accounting for 8.0%; aged 50-54 was 2,090, accounting for 14.5 %; aged 40-49 was 4,593, accounting for 31.9%; aged 30-39 was 5,119, accounting for 35.6%; aged under 29 (inclusive) was 1,440, accounting for 10.0%.

III. SOCIETY



As of the end of 2019, there were 16,579 employees in the Company, including 2,379 senior employees, 53 employees with doctoral and postdoctoral degree, 1,532 employees with master’s degree and 5,440 employees with bachelor’s degree. In 2019, the Company’s minority employees accounted for 5.4% of the total number of employees.

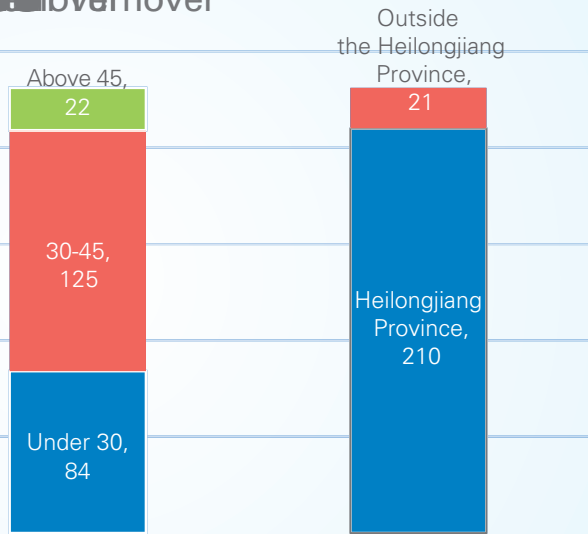


In 2019, the Company further deepened the reform of the distribution system by improving the internal distribution management policy system framework, establishing a policy toolbox, and stimulating the enthusiasm, initiativeness, and creativity of employees. We increased the leaning efforts of compensation distribution towards production backbone, key positions of important contributions and core backbone. We implemented the “blade plan” for the core R&D personnel and related technical backbones to stabilize and motivate the R&D talent team. We improved the compensation incentive and restraint mechanism by realizing the flexible income of the enterprise employees, the linkage of compensation distribution with economic benefits and labor efficiency, and building a harmonious income distribution relationship. During the year, the Company’s total wages were RMB1,627.91 million, and the average wages of employees were higher than the average social wages of the region where the Company is located.

In 2019, there were 192 employees joining the Company and 231 employees leaving the Company, leading to a turnover rate of 1.39%.

III. SOCIETY

fb turnover



III. SOCIETY



The Company held a special training on the implementation of the responsibility of safety production main body, implemented the relevant spirit of the national safety production video and telephone conference, earnestly learned the lessons of safety production accidents of other enterprises, and focused on solving the problems and deficiencies in the implementation of the responsibility of the safety main body of the enterprise.

III. SOCIETY



In order to optimize the integration and sharing of the Company's internal training resources, strengthen the construction of the talent team, solve the bottlenecks and obstacles to talent development, attract, train, and use talents for the Company, and provide talent protection and intellectual support for the Company's development, the Company's talent training base was officially established.

In 2019, the Company continued to focus on building a high quality, high technology and skilled talent team, and carried out various training for 55,135 persons.

Annual Training of Staff

Staff to be trained	By gender		By position level		
	Male	Female	Senior management	Mid-level management	General staff
Percentage of trainees	98%	97%	100%	100%	97%
Average training hours	40	40	120	90	35

The Company adheres to its "people-oriented" development concept, which emphasizes staff management, and has established various systems, including the "Implementation Measures for Paid Leave". It endeavors to create better working environment for its staff, and at the same time reduces exposure to labor employment risks, as well as efficiently eliminates the use of child and forced labor.

The first intelligent welding production line for hanging tubes in the domestic boiler industry is successfully put into use in Harbin Electric Corporation Harbin Boiler Company Limited. Harbin Electric Corporation Harbin Boiler Company Limited has become the only enterprise in the domestic boiler industry which realizes the automatic production line for the hanging tubes from raw material loading to welding, forming and blanking, the collection function of automatic welding data on the hanging tubes, and the automatic welding of various materials applicable to the hanging tubes.

III. SOCIETY

5. SUPPLY CHAIN MANAGEMENT

The supply chain management of the Company adopts a centralized and decentralized mode of operation. Some of the materials are purchased by the subsidiaries in accordance with the bidding and procurement procedures, respectively. Some of the materials are purchased by the Company and gradually expanded to the proportion of centralized purchasing. At the same time, giving full play to the functions of the tender center, we establish and improve the bidding system, and gradually expand the scope of the tender, standardize management and improve efficiency.

The Company standardizes supplier management, adopts strict credit approval process, and implements procurement tender transparency management. The engagement of suppliers strictly fulfills the following processes:

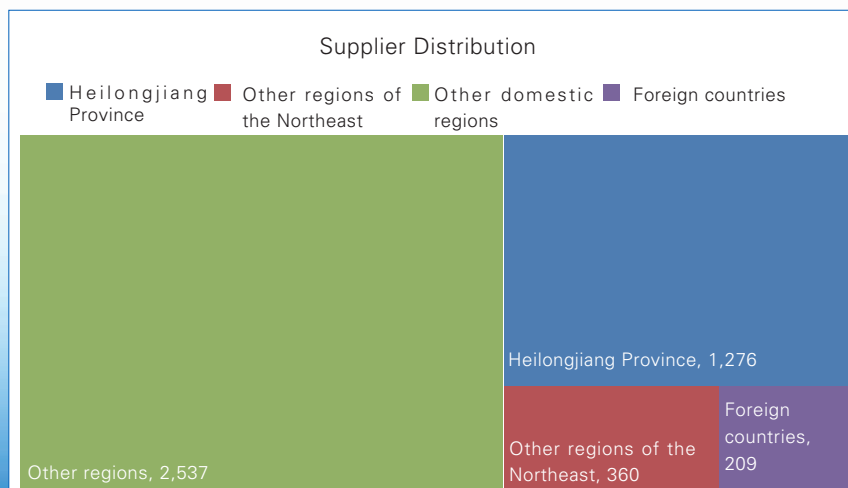
- (1) To strictly review the nominated suppliers' quality assurance capacity, technical level, commercial qualification and other aspects according to the Supplier Qualification Management Approach and include those passing the review in the list of qualified suppliers.
- (2) To select the qualified suppliers to purchase materials in the list of qualified suppliers, fulfill the tender procedures, issue a notice to more than five qualified suppliers (more than three suppliers, if specific materials approved to be strategic and bottleneck supplies), evaluate the organizational documents, conduct tender review, and ultimately determine the supplier based on a comprehensive review of the results and sign a procurement contract.

For some suppliers, the Company will review relevant information on its environmental and social responsibility. The review procedures and contents are as follows:

- (1) It is necessary to provide the corresponding documents within one to three days in advance to review the requirements for the review of environmental management operations control procedures, social responsibility reports and their supporting documents. Those who fail to pass environmental certification or have no social responsibility report are required to provide relevant documents on environmental management and social responsibility.
- (2) Persons with environmental system qualification and business management experience are appointed to conduct on-site audits based on the documents provided.

In 2019, the Company reviewed a total of 183 new suppliers. As at 31 December 2019, the Company had 4,382 qualified suppliers.

Private enterprises account for the majority of the Company's suppliers, who pay the purchase price in time during the procurement to support the development of private enterprises.



III. SOCIETY

The Company has established the concept of "community of interest". With the purpose of serving customers, facilitating customers, and meeting customer needs, we sincerely treat customers and partners, and establish a complete customer relationship management system. We treat customers as long-term strategic partners, going forward and backward together, jointly discovering business opportunities in the market, carrying out business development, and sharing development results. We timely and accurately resolve problems in project execution. There was no negative information on partner responsibility in 2019.



In November 2019, the Company's power station service industry promotion and power station service platform launch conference was held in Beijing. China Huaneng Group Co., Ltd., China Datang Corporation, China Huadian Corporation, State Power Investment Corporation Limited and other enterprise and industry experts attended the conference.

The power station service platform is an information service platform that integrates service technology solution promotion, unit operation failure case analysis, user problem feedback and answers, intelligent remote operation and maintenance system experience, real-time project progress tracking, and spare parts sales. Its multiple service modules such as "spare parts and services," "customer feedback," "project tracking," "data area," "sharing storage," and "online consultation" realizes the organic combination of "Internet + service," providing users with efficient and authoritative communication of questions and solutions for questions and a full range of system services, and providing strong support for the Company in the transformation of a manufacturing enterprise into a manufacturing service enterprise.

III. SOCIETY



In April 2019, the scientific and technological achievements of the “VVER-1000 Nuclear Power Steam Turbine Research and Development” of the Steam Turbine Company and the “Localized Development of the Half-speed Steam Turbine Generator and Auxiliary System of the 1,200MW Class Nuclear Power Plant of the Machinery Company” were certified to reach the international advanced level.



III. SOCIETY

Based on the requirements of
ISO9001 quality management

III. SOCIETY

7. ANTI-CORRUPTION

The Company always attaches importance to the establishment of a system advocating anti-corruption and promoting moral cleanliness, comprehensively implements supervisory duties, fastens and secures the cage of system. In 2019, the Company enabled system establishment to be carried out through to the end among various annual tasks, placed emphasis on design of the top floor, and formulated and revised relevant systems in a timely manner.

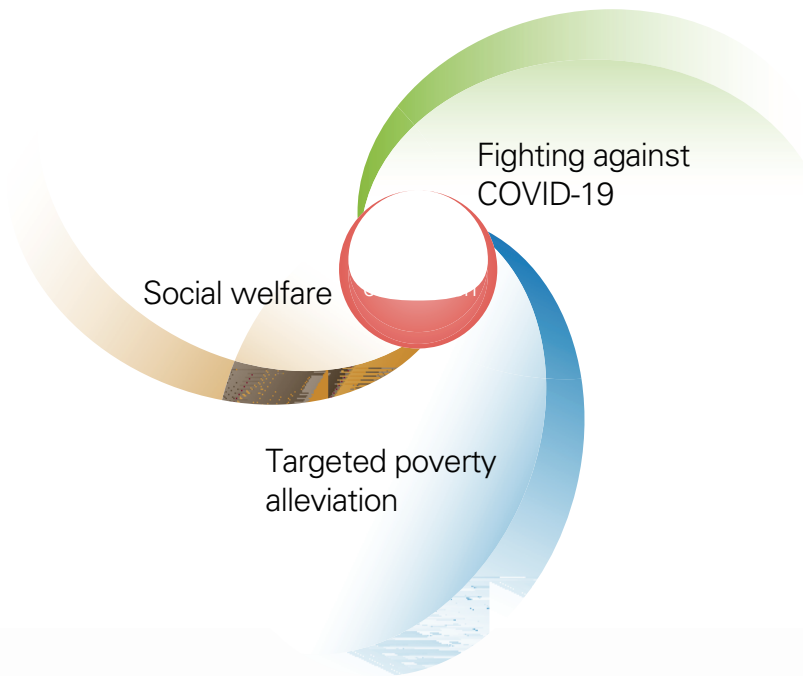
In promoting system for punishing and preventing corruption, the Company carries out the honesty education for leading cadres and personnel in key positions to advance the honest cultural construction, establishes a supervision system and work linkage mechanism led by the discipline inspection commission with joint participation of all departments, to integrate the anti-corruption work and operation management, and further improve the supervision system of the Company.

In 2019, there were zero cases of corruption in the Company.

8. COMMUNITY CONTRIBUTION

The Company strived to maintain community stability and promoted community harmony.

The Company had no negative publicity regarding social community in 2019.



- ◆ The Company rescued and disposed of inefficient and ineffective assets during implementation of major asset restructuring, democratic deliberation of employee resettlement program and other measures in accordance with the national and local laws and regulations, and carried out corporate reforms orderly, which maintained the stability of the enterprise and the place in which it operates. Meanwhile, the Company pushed forward the construction and operation of labour union mutual funds and charity funds from Party members and encouraged our employees to participate in public welfare activities and contribute to the society, so as to enhance their recognition of the society and enterprise as well as sense of belonging; we have also driven harmonious and sound development of the community through voluntary activities such as kindergarten education, medical service and aiding the poor. For years, the Company actively cooperated with the civil air defense, armed forces, civil defense and the “two advocacies” of Harbin, Heilongjiang Province and strived for contributing to regional military and civilian development, which were recognized by the Civil Affairs Bureau and Civil Air Defense Office of Harbin and other relevant authorities. ■ =

III. SOCIETY

- ◆ The Company valued employees' participation in social responsibility practices by encouraging our employees to participate in public welfare activities and contribute to the society, so as to enhance their recognition of the society and the enterprise as well as sense of belonging. Highlighting industry characteristics, the Company

III. SOCIETY

- ◆ In 2019, in active response to the national policies, the Company conducted targeted poverty alleviation work in Wenshan City of Yunnan Province.
- ◆ The Company coordinated and promoted the poverty alleviation work by strengthening the organization and leadership.
- ◆ Insisting on selecting young cadres to take positions in Wenshan City, we selected one employee as the deputy mayor of Wenshan City and one employee as the first secretary of the poor village.
- ◆ Emphasizing industrial poverty alleviation, we invested millions to help people in Wenshan City continue to increase production and income by purchasing and helping to sell agricultural products in poor areas.
- ◆ We sent education resources to the countryside to provide intellectual support for the poverty alleviation of Wenshan.
- ◆ As of the end of 2019, the poverty rate in Wenshan City dropped from 13.67% in 2014 to 0.95%, and was officially out of poverty.



The Company's chairman Si Zefu inspected the Sanqi R&D Base in Miaoxiang, Wenshan City, building bridges to let Wenshan's "agricultural products" sold out of the mountain

Wu Weizhang, the Company's president visited the Bingkun Rice Cooperative in Binglie Township that is busy with production



III. SOCIETY



IV. GOVERNANCE

The Company has been actively enhancing its corporate governance structure and standardizing its operations through strictly complying with relevant provisions such as the Company Law of the People's Republic of China and the Securities Law of the People's Republic of China. The Board of the Company is committed to maintaining a high standard of corporate governance, and believes that good corporate governance practices are crucial to the success and sustainable development of the Company's business in the long run.

In 2019, the Company has fully complied with all code provisions set out in the Corporate Governance Code and Corporate Governance Report in Appendix 14 of the Listing Rules of the Stock Exchange of Hong Kong and, where appropriate, adopted the recommended best practices as specified therein.

The Board of the Company is responsible for the fulfillment of the corporate governance functions. In 2019, the Board of the Company has strictly observed the policies and practices in compliance with laws and regulatory requirement, and also formulated and amended its regulations with reference to those policies and practices, with an aim to perfect our corporate governance policies and practices. The Company continues to focus on the training and continuing professional development of directors and senior management, and actively carries out internal review and rectification work to improve the level of the Company's governance.

Details of which are published under the section headed "Corporate Governance Report" in the 2019 annual report of the Company.



电气股份有限公司
ELECTRIC COMPANY