

哈尔滨电气股份有限公司

HARBIN ELECTRIC COMPANY LIMITED

Stock Code: 1133



2019
Environmental, Social and Governance Report

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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1. COMPANY PROFILE

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 actively carries out the "Going Global" strategy, and implements "Belt and Road" initiative. Its hosts and matching auxiliaries of thermal power, hydropower, nuclear power, etc. have been exported to more than 40 countries and regions, including India, Russia and Brazil. Meanwhile, the Company also launches EPC, BOT and BOO businesses of mechanical and electrical equipment as well as power transmission and transformation projects in thermal power stations, wind farm and hydropower stations both at home and abroad.

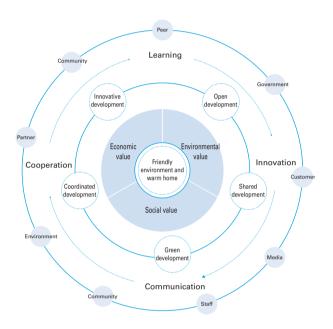
The Company brings together domestic first-class scientific research, technology and management elites, owns advanced production and scientific research test equipment, and has a perfect quality assurance and quality control system. Its research and development capabilities, manufacturing capabilities and power station construction capabilities rank the top among manufacturers of power plant equipment in the PRC.



2. SUSTAINABLE DEVELOPMENT MODEL

Sustainable development model

Build a world-class equipment manufacturer with global competitiveness



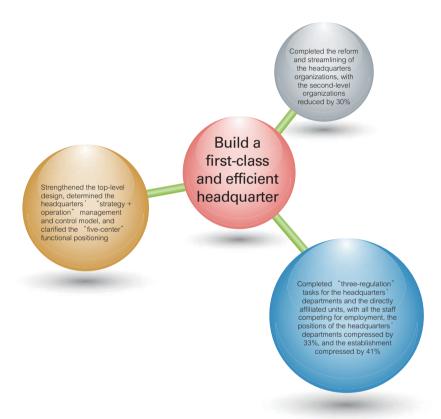
Vision	Core philosophy
Build a power carrier of equipment manufacturing industry in the wor	People-oriented to develop, strength-based to win
Mission	Core values
Bear hopes of the national industry, highlight glamour of China power	r Concerted efforts, dedicated services
Purpose	Spirits
Provide power for the world and bring brightness to human being	Innovative endlessly, motivated forever

3. REFORM, DEVELOPMENT, TRANSFORMATION AND UPGRADING

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.



In 2019, closely focusing on the development strategy, the Company carried out a headquarter reform with the widest coverage, the greatest strength and the deepest interests, clarifying the positioning of the headquarter, optimizing the management and control model, adjusting the post setting, and reforming the distribution system, in an effort to build a vibrant, first-class and efficient headquarter with distinct responsibilities and rights, smooth operation, and proper management.



Transformation and upgrading

In 2019 , the Company formulated the Implementation Opinions on High-Quality Development, taking various measures to promote the Company's transformation and upgrading.

Speeded up the process of capital operation

- Made clear positioning, that is, the Company itself focuses on new industries, while subsidiaries focus on new products, and scientific research units focus on new technologies
- Actively promoted the development of wind power and solar thermal industry, completed analysis and demonstration, and determined
- Strengthened investment project management, with construction of Shanxi environmental protection BOT project completed one month in advance and operating income realized of RMB40 million
- Realized diversified investment layout and promoted investment projects such as coal-fired cogeneration project in Liaocheng of Shandong
- Grasped the opportunity of the State to divest school-run enterprises and deepened industrial cooperation with universities such as Harbin Institute of Technology and Harbin Engineering University

Continued to promote technological innovation

- Implemented science and technology investment of RMB1.15 billion
- Completed a total of 325 scientific research projects, and developed 125 new products

Seized the opportunity of large-scale transformation of Russian thermal power plants to increase cooperation with Russia

Innovated the "headquarters" marketing model, and actively carried out "technical transformation + perameter upgrade," "technical transformation + overhaul;" "technical transformation + overhaul;" "technical transformation + capital" and other marketing models

Launched "Internet + service" power station service platform officially

- Obtained a total of 29 scientific and technological awards, including 2 national-level special awards and 20 provincial and ministerial-level awards
- Obtained a total of 431 patent authorizations, including 77 invention patents

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. Energy conservation and environmental protection efforts achieved positive results. No environmental protection accidents occurred throughout the year.

1. ENVIRONMENTAL PROTECTION INDUSTRY

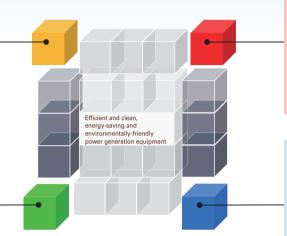
In 2019, China's electric power continues with the green and low-carbon development trend, the proportion of installed capacity of non-fossil energy power generation continues to increase, and non-fossil energy power generation continues to grow rapidly. Conforming to the international and domestic energy development trends, and adhering to the concept of sustainable development, the Company continues to increase the development of high-efficiency clean energy and new energy power generation equipment to strive to achieve the coordinated development of enterprise and environmental protection.

The Company attaches great importance to building a complete scientific research and development system. By initiating the implementation of green technology, energy conservation and environmental protection concepts, increasing the implementation efforts of science and technology and a series of energy conservation and emission reduction policies and measures, and strengthening the construction of a low-carbon industrial chain, the Company promotes the healthy and sustainable development of enterprises. On the one hand, it is committed to the application of advanced technology and equipment and the elimination of backward production capacity; on the other hand, it optimizes the product structure, actively develops efficient, clean, energy-saving and environmentally friendly power generation equipment, and vigorously develops clean energy such as hydropower and nuclear power.

CLEAN AND EFFICIENT EQUIPMENT TO FACILITATE THE BATTLE FOR BLUE SKY

The Company has an ultra-supercritical secondary reheat boiler with independent intellectual property rights. It is currently the world's most advanced thermal power generation equipment with the highest parameters and the largest capacity, as well as significant energy saving and emission reduction advantages

The Company's first optimized ultra-supercritical 660MW air-cooled unit is an intermediate reheat, single-shaft, three-cylinder, two-exhaust, reaction-type, surface-type indirect air-cooled unit, with clear technical characteristics, obvious advantages, and features of safety, reliability, high economy and flexible operation



The Company's 660MW "water-hydrogen-hydrogen" OFSN-660-2YH type steam turbine generator unit is small in size, large in output, high in operation safety, high in generator efficiency up to 98.98%, and high in operation economy. Its performance test indicators of coal consumption for power supply are 286.5g/kWh and 2874g/kWh. Its various economic and technical indicators have reached an excellent level

The Company's environmental protection industry also includes denitrification, dust removal, and desulfurization business. It is the earliest domestic enterprise to enter the denitration market. Its denitration products covers 135MW-1,100MW, and the cumulative unit capacity exceeds 100 million kilowatts. It is a leading enterprise in the domestic denitration industry

The power generation efficiency is 48.12%

Better than the current world's best level by 0.3%

The coal consumption for power generation is 255.29g/kWh

Better than the current world's best level by 1.51g/kWh

The coal consumption for power supply is 266.18 g/kWh

Better than the current world's best levels level by 1.51 g/kWh



The million-kilowatt ultra-supercritical secondary reheated coal-fired generator unit in Laiwu Power Plant of China Huaneng Group, of which the boiler equipment is provided by Harbin Electric Corporation Harbin Boiler Company Limited, has completed various performance evaluation tests after a half-year trial production period. With environmental protection indexes better than the national ultra-low emission limits, the unit has become the world's thermal power unit with the highest efficiency, the lowest energy consumption, the optimal index, and the best environmental protection, and also the world's green coal power benchmark unit.

Annual emission reduction of SO2

438,000 tonnes

Annual emission reduction of SO2 at the desulfurization efficiency of above 98%

162 tonnes

Annual emission reduction of nitrogen oxides at the denitrification efficiency of above 85%

150 tonnes

Annual emission reduction of dust at the dust removal efficiency of above 99.89%

49 tonnes



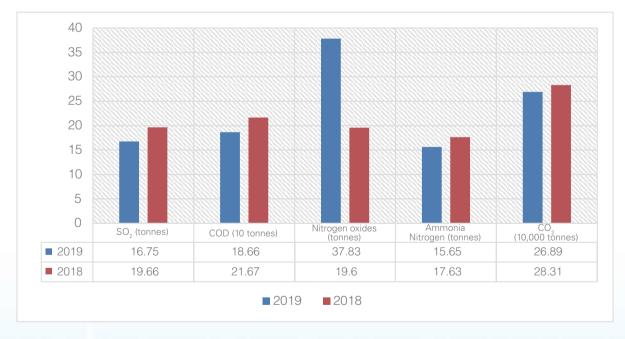
The first national biomass coupled power generation demonstration project contracted by Harbin Boiler Co., Ltd. - the demonstration project on coupled 20MW biomass power generation of Datang Changshan 660MW ultra-supercritical coal-fired generator unit successfully passes the 168-hour trial operation 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.

2. EMISSIONS

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, CO_2 , etc. In 2019, the Company's SO_2 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%; CO_2 emissions were around 268,860 tonnes, with a year-on-year decrease of 5.04%; and CO_2 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.

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.

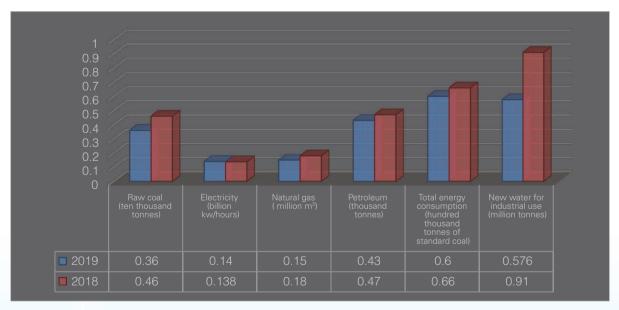
Focusing on the establishment of environmental management system and standardization of the management of hazardous wastes, the Company's subsidiaries firmly deal with and rectify any behavior which is not in compliance with relevant regulations and laws and inspects any potential environmental hazard. 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.

3. USAGE OF RESOURCES

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.

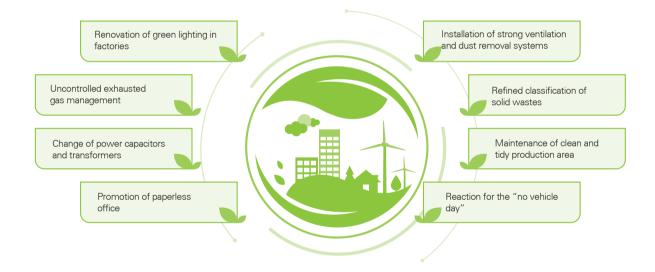
The major raw materials required by the Company are steels and non-ferrous metals. By continuously improving our designs and techniques to promote the utilization rate of materials, the Company's utilization rate of major raw materials was 80% in 2019. The Company's packaging materials vary with the 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.



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.

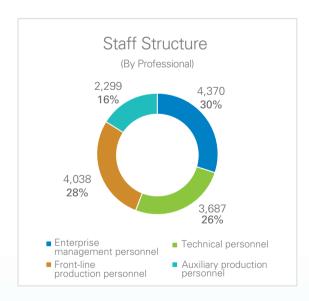


The Company actively practices social responsibilities, creates more jobs, and realizes corporate social value. Focusing on the core values of "Concerted efforts, dedicated services", the Company adopts people-oriented approach, builds harmonious labor relations, strengthens occupational health protection 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.

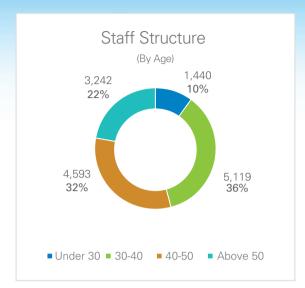
1. EMPLOYMENT

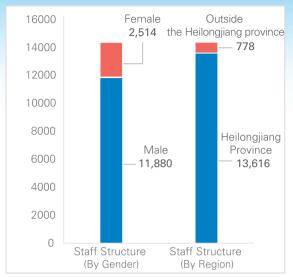
The Company implemented a working system of five days a week and eight hours a day. Staff are entitled to all holidays prescribed by the nation and local governments and are entitled to paid leaves ranging from 5 to 15 days depending on their years of service. Staff of the Company are entitled to "5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



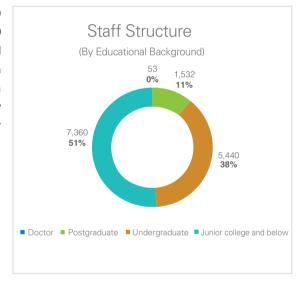
As of 31 December 2019, the total number of employees in the Company was 14,394, including 2,514 female employees, accounting for 17.5% of the total.

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%.



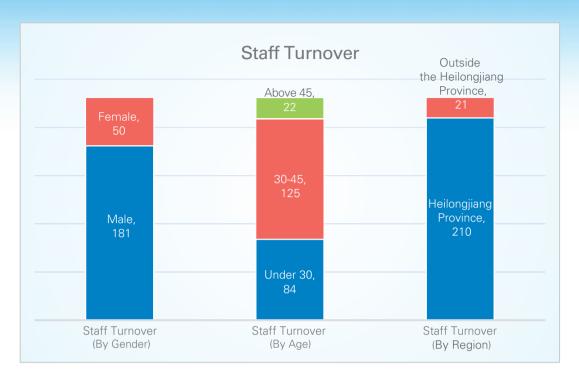


As of the end of 2019, there were 16,579 employees in the Company, including 2,379 senior employees, 53 employees with doctoral and postdoctoral degree, 1,532 employees with master's degree and 5,440 employees with bachelor's degree. In 2019, the Company's minority employees accounted for 5.4% of the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



2. HEALTH AND SAFETY

The Company attaches great importance to the health and safety of our staff members. Each subsidiary has set up a regulatory system for production safety and occupational diseases prevention and control. Specific department is assigned to oversee the safety in production, striving to create a safe working environment for the Company's staff members and keep them out of occupational health hazard.

The Company effectively operates the Occupational Health and Safety Management System (OHSMS18000) and Environmental Management System (ISO14000). Insisting on the policy of "placing safety on top of the priority list, taking precaution as the main task and providing comprehensive treatment", we continue to deepen major responsibilities in ensuring production safety, and extensively commence promotion, education and training on production safety, while safety education will be provided to new employees once they join our Company. We continued to work on meeting the targets of production safety standardization and established sound mechanism on contingency and reaction for overseas safety issues for overseas investment cooperation. Large-scale inspections on production safety are performed regularly to eliminate any potential hazards in a timely manner. Generally, the Company arranges regular medical checkups for staff members once every year. For those who work under poor environment, the items checked and frequency of checkups will be increased accordingly and treatment are regularly organized to minimize occupational threat to their health, enhancing our level of occupational health and safety and environmental management.

In 2019, the Company took the "two construction focuses" including the construction of safe production standardization and hidden dangers inspection and governance system as its main line, further improved the safety production responsibility system, policy system, risk prevention and control system, education and training system and emergency rescue system, continued to lay a solid foundation for safety production, focused on improving safety management level, and effectively curbed the occurrence of major and extraordinarily serious accidents, thereby providing a solid guarantee for the smooth and healthy development of the Company.





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.

In 2019, the Company inspected a total of 2,658 potential safety hazards with a rectification rate of 99.37%, conducted 159 emergency drills with 7,123 attendances, invested RMB33,495,400 in production safety, and held 163 training sessions on production safety attended by 26,300 persons. Throughout the year, there were no accidents with serious injuries and no fatal incidents, and there were 20 minor accidents with 20 employees suffering from slight injuries. The rate of work injury involving a thousand workers was 1.19‰. The overall status of production safety was relatively stable. The overall efficiency for safety was further enhanced.

3. DEVELOPMENT AND TRAINING

The Company selects excellent talents to study master's and doctoral candidate degrees for working professionals and to be trained overseas. Each year, the Company's subsidiaries select and assign around 50 excellent management and technical personnel to study MBA, master of engineering and doctoral candidate degrees in key universities and colleges in China, such as Harbin Institute of Technology. As a result, a multilevel talent training system for R&D and management has been established and a well-structured professional and technical talent echelon has been gradually formed. In order to meet the requirements of new situation, the Company actively selects and assigns senior management and excellent technical talents to study and be trained with advanced technical knowledge and management experience in well-known companies overseas such as GE (the United States) and Siemens (German).

In order to strengthen the construction of core talents team, the Company released a series of documents related to talents to guide and motivate the personnel development through dual channels including talents and official career, gradually improving the core talent system of the Company. The Company has established an order for post promotion in the professional technical post from assistant director, deputy director, senior director, academic leader, vice chief engineer, and chief engineer of its subsidiaries to technologist and chief technologist; it also has established an order for post promotion in the production worker post from primary worker, intermediate worker, senior worker, technician, senior technician, associate senior technician, senior technician of its subsidiaries to highly-skilled expert and Harbin Electric Master Craftsman.





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

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

4. LABOR STANDARDS

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 became 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.

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:

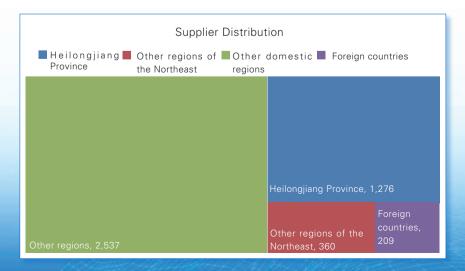
- (1) To strictly review the nominated suppliers' quality assurance capacity, technical level, commercial qualification and other aspects according to the Supplier Qualification Management Approach and include those passing the review in the list of qualified suppliers.
- (2) To select the qualified 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.



6. PRODUCT LIABILITY

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.

The Company launched power station service platform





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.

The Company vigorously promotes the spirit of craftsmanship, and encourages and rewards technological innovation, skills innovation and service innovation. We signed strategic cooperation agreements with a number of well-known domestic universities and research institutions. We increased capital and manpower input, worked together to develop the national power industry science and technology project, and jointly established a technological innovation system for the production of power plant equipment based on the theory of enterprises as the main body and the integration of industry-university-research-application. In 2019, Processing Technology for Guide Vanes of Nuclear Pumps in Nuclear Power Plant conducted by Power Equipment Company was awarded the 21st China Patent Excellence Award, and the Machinery Company was recognized as National Enterprise with Advantages in Intellectual Property. The achievements of application demonstration of tools for processing steam generator tube plate (key components) in the third generation nuclear power plant made by the Heavy Equipment Company spanned the gap in China. In 2019, the Binchang Demonstration Project on the World's First 660MW Ultra-supercritical Circulating Fluidized Bed Boiler was formally established. "Yangtze River Three Gorges Project" conducted by Machinery Company was awarded the National Special Award for Science and Technology Progress, and the "Tianwan Nuclear Power Phase II Project Conventional Island Equipment" was awarded the National First Prize for Nuclear Energy Scientific and Technological Progress.



"Yangtze River Three Gorges Project" won the 2019 National Special Award for Science and Technology Progress. From the joint production and cooperative production by a consortium formed by the Three Gorges Left Bank Hydropower Station and a well-known foreign company, to the independent research and development of the Three Gorges Left Bank Hydropower Station and the underground power station, Harbin Electric Corporation has not only embarked on a successful road of introduction, digestion, absorption and re-innovation, but also successfully innovated and designed a high-quality runner with independent intellectual property rights, and developed the fully air-cooled technology for giant hydro-generator sets which is unique in the world.

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.



Based on the requirements of ISO9001 quality management system and the actual situation of their products and the market, the subsidiaries of the Company have formed an effective quality control model. Each subsidiary has set up a special quality inspection department, which is responsible for the final monitoring and measurement of incoming materials, process rooms, and products (both including monitoring and measurement at the supplier).

The personnel engaged in monitoring and measurement must be trained and authorized. The quality inspection department prepares inspection and test procedures and acceptance rules according to the planned results, stipulates the inspection and test procedures and accepted by the customer before the product and services can be released and delivered to the planned results, stipulates the inspection and test items that should be carried out at each stage, clarifies the items that need to be inspected and accepted by the customer, and the records that need to be established. The product design and process department cooperates with the quality inspection department.

When applicable, it should be approved by the customer before the products and services can be released and delivered to the customers.

The quality inspection department establishes and maintains records of monitoring and measurement. The records can clearly indicate whether the product has passed monitoring and measurement. The records can also indicate whether the product has passed monitoring and measurement according to all requirements. The records can also indicate the personnel authorized to release the product or delivered to the customer.

易者信 CHN ENERGY **企** 山东电力工程咨询院有限公司 哈尔滨电气股份有限公司: 时光如梭、紫忙、充实、难忘的 2019 年即将落下帷幕。易折的 陕西德源府谷电厂扩建工程总承包项目 2020年已信给来告。 在 2019 年里、海南核电二甥工程、小堆示范工程全面启动、汽 能发电机组等设备进入项目实质性执行阶段。这期间,在黄公司以及 表 扬 信 相关制造单位的有效组织和及时保障下,汽轮发电机组、主泵项目进 哈尔茨电气放货有限公司: 展载为期利, 质量总体受控, 进度符合计划, 支付及时完成。 产我院承集的集画德迪将谷电广二届 2×660MW 扩建上程点量包项目 新的一年里。在中国核电工程有限公司的项目组织下,建盟贵载 建设过程中, 贵间始终坚持科学规范高级管理, 全局统筹规划安排, 想各户 双方继续精诚合作,大力弘扬"四个一切"被工业精神,强满完成设 之所想、急项目之所急,贵司及三大主机厂合理组织、精心变棒、及时发运。 备安全、质量、进度和支付等相关任务。为我项目的顺利建设提供整 **略保满足坝场安装进度、城量要求,受到业丰为及状院的高度认可。** 宏保课! 在此、感谢贵公司给予我项目部的人力支持和机械配合、希望在接下来 值此辞日迎新之际, 衷心感谢贵公司相关部门及人员为我项目作 的设备供货与项目服务中一间揭手、再接再房,为我国电力事业的发展做出 出物不懈努力,并祝愿费公司在新的一年里万事如意,燕海盯上!并 在新年末临之际,农员司金体员工元旦快乐、同家欢乐、祝贵司事业验 清费公司将或公司的邮谢与祝愿一并转送哈尔宾汽轮机厂有限公司。 芯日上, 万事如意。 哈尔宾电气动力装备有限公司,哈尔滨电机厂有限公司等相关单位, 如見力 再次感谢! 海南棕电有黑公司 2019年12月29日 海南核电有限公司

Our customers are mainly power generation enterprises. The Company's products generally go through 168-hour trial operation after installation is completed in the power plant, and put into commercial operation after being qualified. During the period of commercial operation, the Company will generally offer one-year quality guarantee period to customers.

In 2019, zero quality accident occurred in the Company. No product was recovered for safety and health reasons. No compliant relating to product and service was received.

In providing users with products that meet their needs, the Company is also committed to offering timely, effective service to users, proactively conducting visits, understanding and dealing with issues raised by users.

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.

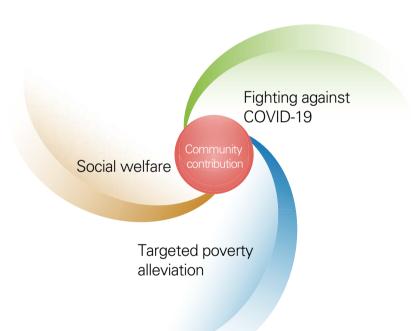
In promoting system for punishing and preventing corruption, the Company carries out the honesty education for leading cadres and personnel in key positions to advance the honest cultural construction, establishes a supervision system and work linkage mechanism led by the discipline inspection commission 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.

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 extensively carries out volunteer service activities with cultural characteristics, vigorously promotes the spirit of volunteer service, and creates a good atmosphere for cultural volunteer services.



The Company actively mobilizes cadres and employees to support and participate in social welfare undertakings. In order to contribute to the clinical use of blood in Harbin, actively respond to the urgent mood of the employees who are willing to support and participate in social welfare undertakings, and demonstrate corporate social responsibility, the Company centrally organized unpaid blood donation activities by delivering positive social energy with practical actions!

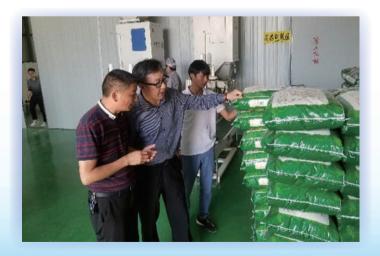


- ♦ In 2019, in active response to the national policies, the Company conducted targeted poverty alleviation work in Wenshan City of Yunnan Province.
- ◆ The Company coordinated and promoted the poverty alleviation work by strengthening the organization and leadership.
- ♦ Insisting on selecting young 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



- ♦ At the beginning of 2020, faced with the severe situation of the COVID-19 pandemic, the Company has been careful to do all the work in the prevention and control of COVID-19 as well as the resumption of work and production. The Company maintains a "zero epidemic" at home and abroad. At the same time, the Company resolutely shoulders social responsibilities and actively participates in the fight against COVID-19.
- ◆ During the fighting against the epidemic, the Company sticks to its goal of full-scale production and operation unwaveringly, took multiple measures to actively and orderly promote the resumption of work and production, and went all out to ensure the construction of major projects. The timely and full reopening of national economy and people's livelihood projects, such as the world's first million-kilowatt equipment − Baihetan million-kilowatt hydrogenerator unit, State Power Investment in Pingdingshan, million-kilowatt steam turbine transformation of Huaneng Qingbei, effectively guaranteed the construction progress of the projects.



Donated to epidemic prevention and control frontline personnel in Wuhan City and Heilongjiang Province RMB1.1 million in prevention and control materials;

Employees of the Company made donations to the epidemic prevention and control frontline in Wuhan 11,049 N95 medical masks

Employees' cumulative donation amount More than RMB1.2 million;

Purchased condolences to visit 363 medical workers in the frontline of epidemic prevention and control in Heilongijang and their families

More than RMB400,000;

Donated epidemic prevention materials to some overseas owners and partners More than RMB4,600,000.

With the global spread of COVID-19, the Company attaches great importance, actively plans, and scientifically prevents and controls to ensure that the project makes positive progress. On May 18, Hasyan Clean Coal-fired Power Plant Project, which is a key project in the Belt and Road Initiative, successfully achieved grid-connected power generation.



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.

