



Beijing Jingneng Clean Energy Co., Limited
北京京能清潔能源電力股份有限公司

(A joint stock company incorporated in the People's Republic of China with limited liability)

Stock Code: 00579



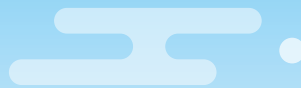
2018

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

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GLOSSARY

“ESG”	Environmental, Social and Governance
“ESG Report” or “The Report”	The Environmental, Social and Governance Report
“The Company”	Beijing Jingneng Clean Energy Co., Limited
“The Group” or “We”	The Company and its subsidiaries
“The Year”	The period between 1 January 2018 and 31 December 2018
“The PRC”	The People’s Republic of China
“Hong Kong Stock Exchange”	The Stock Exchange of Hong Kong Limited
“BEH”	Beijing Energy Holding Co., Ltd.
“Jingxi Power”	Beijing Jingxi Gas-fired Power Co., Ltd.
“Jingfeng Gas”	Beijing Jingfeng Natural Gas-fired Power Co., Ltd.
“Jingyang Power”	Beijing Taiyanggong Gas-fired Power Co., Ltd.
“Gaoantun Power”	Beijing Jingneng Gaoantun Gas-fired Power Co., Ltd.
“Jingqiao Power”	Beijing Jingqiao Thermal Power Co., Ltd.
“Weilai Power”	Beijing Jingneng Weilai Gas-fired Power Co., Ltd.
“Shangzhuang Power”	Beijing Shangzhuang Gas-fired Power Co., Ltd.
“New Energy”	Beijing Jingneng New Energy Co., Ltd.
“Southwest Branch”	Beijing Jingneng Clean Energy Co., Limited Southwest Branch
“Shenyang Branch”	Beijing Jingneng New Energy Co., Ltd. Shenyang Branch
“Australian Project”	New Gullen Range Wind Farm Pty Ltd.
“Dachuan Power Station”	Sichuan Dachuan Power Co., Ltd.
“Keyouzhong Wind Power Station”	Inner Mongolia Jingneng Keyouzhong Wind Power Co., Ltd.
“Wujiaqu Photovoltaic Power Station”	Wujiaqu Jingneng New Energy Co., Ltd.





ABOUT THE REPORT

The Group is pleased to publish the ESG Report of the Year. The ESG Report elaborates the principles and various works of the Group's fulfillment in corporate social responsibility during the Year. For details of corporate governance, please refer to the Corporate Governance Report of the Group's Annual Report of the Year.

SCOPE OF THE REPORT

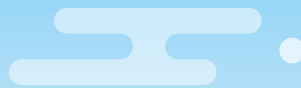
The ESG Report covers the performance of the Group's core business in environmental management and social responsibility of the Year. The key performance indicators ("KPIs") as disclosed in the ESG Report covers the Group's headquarter and all its subsidiaries. Unless otherwise specified, the currency unit used in the Report is presented in RMB.

REPORTING STANDARD

The ESG Report was prepared in accordance with Appendix 27 the "Environmental, Social and Governance Reporting Guide" under the Main Board Listing Rules on the Hong Kong Stock Exchange and complies with the "Comply or Explain" requirement set out therein.

OPINION AND FEEDBACK

For details of environment, social and corporate governance of the Group, please refer to the Group's official website (<http://www.jncec.com/>) and the Annual Report. The Group highly values your opinion on the Report. Should you have any opinions and suggestions, please email us via: dongban@jncec.com.



CHAIRMAN'S STATEMENT

Dear Shareholders,

In 2018, China's overall macro-economy progressed amid stability with the deepening of the supply-side structural reform and the intensified efforts in reform and opening-up. Year 2018 witnessed the Group's first step towards high-quality development by addressing new challenges and advancing with stability. Firmly adhering to the keynote of "reform and innovation, integrated development, transformation and upgrading, quality improvement and efficiency enhancement", the Group earnestly promoted operation and management as well as cost reduction and efficiency improvement. With the implementation of "five refined" management and "three fundamentals and nine capabilities" team building, the Group defined the development approach of "rooted in Beijing, tapping into Beijing, Tianjin and Hebei area, covering the whole country and expanding to overseas market". As of the end of 2018, the Group had a total consolidated installed capacity of 8,667 MW, of which gas-fired power and heat energy generation accounted for 4,702 MW, up by 266 MW and photovoltaic power generation accounted for 1,168 MW, up by 370 MW.

In response to the national call and to implement the Beijing municipal government's decision on state-owned enterprises reform, leveraging on the "Double Hundred Actions", the Group has taken the initiative to deepen the integration reform, optimize the governance structure, adhere to the new development concept, insist on the keynote of seeking progress while maintaining stability, remain committed to the reform idea of the industrial sector promotion and self-optimization as a listed company by accelerating the expansion of mergers and acquisitions and implementing the innovation drive. Taking the concept of "people-oriented and benefiting both the enterprise and the people" as the fundamental driving force, the Group continued to adhere to the "semi-organic growth" and "two-wheel drive" model to enhance both the domestic and international competitiveness, striving to become an excellent clean energy supplier.

2019 is a crucial year for the implementation of the "13th Five-Year Plan" and the deepening of the supply-side reform. The Group will make full use of the changes in national policies on clean energy and focus on economic efficiency. It will also generate profits from stock, achieve growth from increment and continue to advance with stability. Under the guidance of the "innovative practice underpinning the 40th anniversary of the reform and opening up" and following the "13th Five-Year Plan", the Group will strive to bring continuous, stable and long-term returns to Shareholders as the fundamental goals, and thereby paying a tribute to the upcoming 70th anniversary since the foundation of the New China!





ABOUT THE GROUP

OVERVIEW OF THE GROUP

Established in August 2010, the Company is a subsidiary of BEH and is listed on the Main Board of the Hong Kong Stock Exchange on 22 December 2011. The Group operates in various provinces, municipalities and autonomous regions, such as Beijing, Inner Mongolia, Ningxia, Sichuan, Hunan and Guangdong, with the scope of business including gas-fired power and heating, wind power, photovoltaic power, small-to-medium-sized hydropower and other clean energy generation businesses. The Group is an international eminent clean energy enterprise, an industry-leading clean energy brand, the largest gas-fired heat and power supplier in Beijing and the leading wind power operator in China.

As of 31 December 2018, the total consolidated installed capacity of the Group amounted to 8,667 MW; installed capacity under construction reached 1,400 MW and high-quality project backlog exceeded 10,000 MW. Being the leading gas-fired heat and power supplier in Beijing, the Group operates seven gas-fired cogeneration power plants with a consolidated installed capacity of 4,702 MW, with its power generation accounting for over 50% of the gas-fired power generation in Beijing and centralized heating accounting for over 60%. The consolidated installed capacity of wind power generation reached 2,348 MW with the majority located in Inner Mongolia region, Shaan-Gan-Ning region and Beijing-Tianjin-Hebei region in China where wind resources are abundant. The Group's photovoltaic power generation installed capacity is 1,168 MW, which is distributed in northwestern China, northern China and southern China regions with relatively abundant solar resource. Moreover, the Group operates other clean energy business such as small-to-medium-sized hydropower, accumulating a 449 MW of consolidated installed capacity, which is mainly located in southwestern China where water resources are sufficient. In addition, the Group continually explores overseas projects and actively develops wind power and photovoltaic projects in Australia.

Bearing in mind the corporate vision of “being an excellent clean energy operator”, the Group has clearly defined its development strategy of “rooted in Beijing, tapping into Beijing, Tianjin and Hebei area, covering the whole country and expanding to overseas market”. It adheres to the “two-wheel drive” of independent development and project merger and acquisition, and heads on the path of “intensification, regionalization, scale, specialization and high efficiency”. Focusing on economic efficiency, the Group generates profits from stock, achieves development from increment, and seeks progress while maintaining stability. The Group actively adapts to the new normal of economic development and continually improves its competitiveness and capability in sustainable development.



ABOUT THE GROUP

MAJOR AWARDS AND HONORS

Awardee	Awarding Organization	Name of Award
The Company	China Institute of Energy Economics Research	2018 Top 500 Global New Energy Enterprises
BEH	China Enterprise Confederation, China Enterprise Directors Association	2018 Top 500 Chinese Enterprises
Jingxi Power	Beijing Municipal Science & Technology Commission, Beijing Municipal Finance Bureau, Beijing Municipal Tax Service	High-tech Enterprises
	Beijing Municipal Commission of Traffic Safety	City-level Traffic Safety Advanced Unit
	Shijingshan District Fire Safety Committee	Advanced Unit in Fire Control 2018
	Beijing Labour Unions	Winner of 2018 “Ankang Cup” Competition
	Capital Spiritual Civilization Construction Commission	Civilized Unit of the Capital
	Beijing Labour Unions	Demonstration Site of Workers’ Book House
Jingfeng Gas	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization
	China Association for Water and Electricity Quality Management	Advanced Company of QC Group Activity in National Electric Power Industry
Jingyang Power	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization





ABOUT THE GROUP

Awardee	Awarding Organization	Name of Award
Gaoantun Power	China Information Industry Association Energy Branch	The First Prize for 2018 Outstanding Achievement in Information Technology Application Innovation among Electric Power Enterprises
	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization
Jingqiao Power	China Electricity Technology Market Association	2018 Jingqiao Award of Advanced Collective in Power Industry
	China Electricity Council	2018 Electricity Power Innovation Award
	China Energy Research Society	The First Prize of 2018 China Energy Research Society Energy Innovation Awards
	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization
	Beijing Municipal Commission of Traffic Safety	Outstanding Management Cadres in Municipal Traffic Safety
	Beijing Municipal Commission of Traffic Safety	City-level Traffic Safety Advanced Unit
	Capital Spiritual Civilization Construction Commission	Civilized Unit of the Capital
Weilai Power	Beijing Municipal Water Authority	Water-saving Company in Beijing
	Beijing Municipal Science & Technology Commission, Beijing Municipal Finance Bureau, Beijing Municipal Tax Service	High-tech Enterprises



ABOUT THE GROUP

Awardee	Awarding Organization	Name of Award
Shangzhuang Power	China Electric Power Construction Association	The Third Prize of Power Construction Science and Technology Progress
	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization
New Energy	China Electricity Technology Market Association	The Second Prize of Jinqiao Award of Project in Power Industry
	Beijing Enterprise Confederation, Beijing Enterprise Directors Association	The Second Prize for the 33rd Beijing Innovation Achievement in Corporate Management Modernization
	Datong Municipal People's Government	Great Contribution Enterprise to Datong Municipal People's Government
	Chinese Institute of Business Administration	The Second Prize of 2018 Innovation Achievement Award in National State-owned Enterprise Management Innovation
	China International Low Carbon Technology Expo Committee	Best Investment Value Project Award
	Capital Spiritual Civilization Construction Commission	Civilized Unit Pacesetter of the Capital





RESPONSIBILITY MANAGEMENT

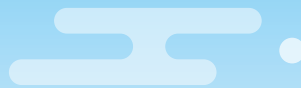
ESG Governance

In order to effectively implement sustainable development strategies and bring long-term returns to stakeholders, the Group's board of directors (the "Board") shoulders the responsibilities of ESG governance. The Board is responsible for overseeing the establishment and reporting of the ESG strategy of the Group, as well as assessing and determining the ESG risks of the Group and ensuring appropriate and effective measures on managing ESG risk, as well as internal control system. Through the internal review process, the Board regularly arranges for independent evaluation and analysis of the effectiveness and completeness of the above systems, so as to enhance the ESG governance of the Group.

Stakeholder Engagement

The Group fully recognizes the close relation between stakeholders and corporate business development and therefore it regards stakeholders' opinions and aspirations as the foundation of the Group for formulating and implementing short-term and long-term development strategies. Through communication via various effective channels during daily operations with internal and external stakeholders, the Group understands their expectations and requirements for the Group, and hence the Group makes corresponding responses and actively shares the responsibilities and achievements.

Stakeholders	Expectations and Requirements	Means of Communication and Response
Shareholders and Investors	<ul style="list-style-type: none">• Ensure the value maintenance and appreciation of state-owned assets• Avoid operational risks• Good practices in information disclosure• Explore market needs, develop new markets	<ul style="list-style-type: none">• Investor meetings• Statements and visits• Regular work reporting
Government and Regulators	<ul style="list-style-type: none">• Implement macro policies• Promote industry development• Compliance with laws, equal competition• Compliant tax payment, boost in employment	<ul style="list-style-type: none">• Participate in industrial standard formulation/discussion• Regulatory examination• Pay taxes actively
Users	<ul style="list-style-type: none">• Safe and stable electricity and heat supply• Effective communication channels• Comprehensive customers service	<ul style="list-style-type: none">• Strict quality control• Seminars and interviews• Customer satisfaction survey• Respond to customers' complaints



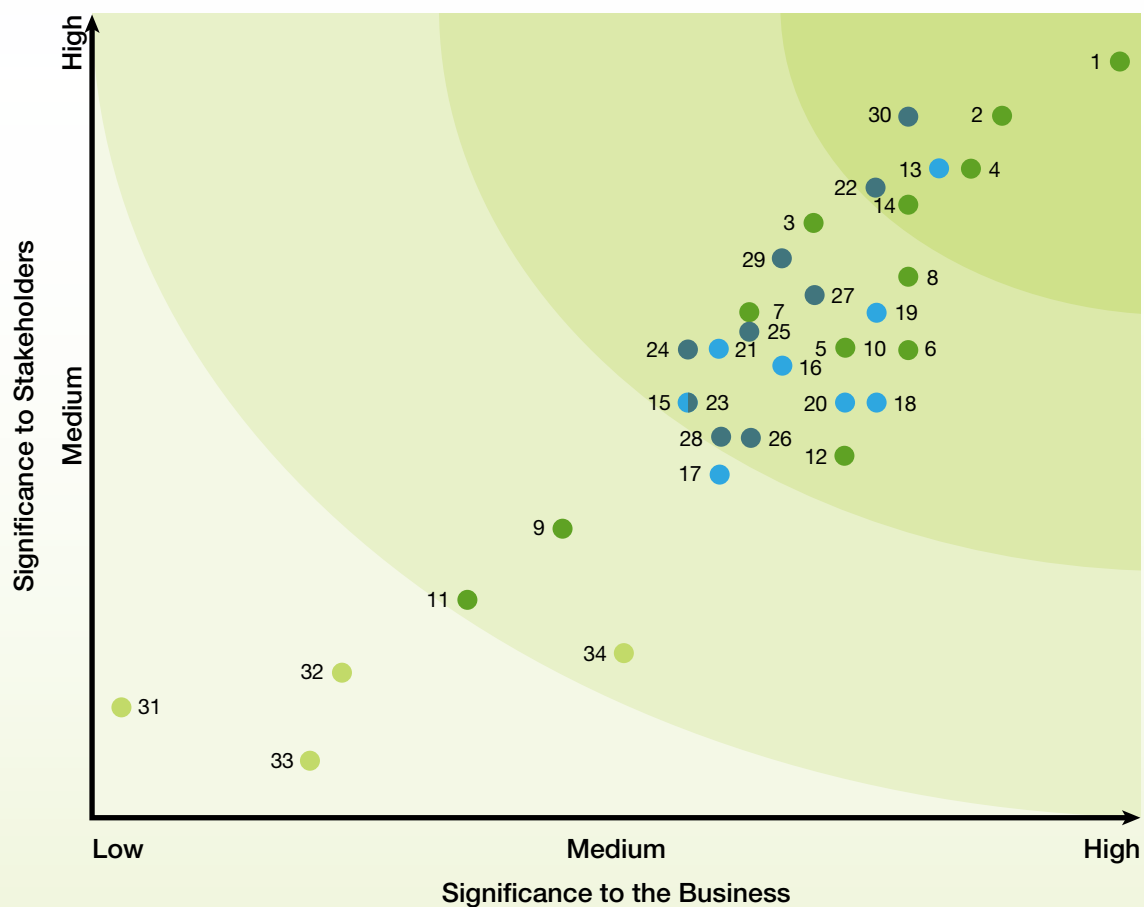
ABOUT THE GROUP

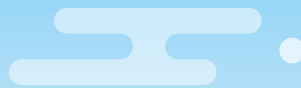
Stakeholders	Expectations and Requirements	Means of Communication and Response
Business Partners	<ul style="list-style-type: none"> • Conform to the code of business ethics • Fair and Open Procurement • Mutual benefits and co-development 	<ul style="list-style-type: none"> • Formulate fair and open procurement policies • Strict examination and certification • Enhance communication • Foster performance of responsibilities
Non-governmental Organizations (“NGOs”)	<ul style="list-style-type: none"> • Keep close contact and share information • Develop cooperation 	<ul style="list-style-type: none"> • Participate in industrial communication meetings • Communicate with NGOs and achieve positive interactions
Employees	<ul style="list-style-type: none"> • Protect basic rights • Foster skill enhancement and career development • Care for employees 	<ul style="list-style-type: none"> • Establishment of reasonable remunerations and benefits system • Employee training and feedback • Occupational health and safety management • Meetings with employee representatives and other communication channels • Care and support for employees
Community	<ul style="list-style-type: none"> • Focus on people’s livelihood • Engage in public welfare • Support community development 	<ul style="list-style-type: none"> • Boost employment • Support for related-industrial development • Public welfare events
Environment	<ul style="list-style-type: none"> • Compliance with environmental laws and regulations • Reasonable use of resources • Implementation of energy conservation and emission reduction 	<ul style="list-style-type: none"> • Green electricity supply • Compliant pollutant emission • Energy conservation, emission reduction and circular economy development • Green office and environmental charity



Materiality Assessment

In preparation of the ESG Report, the Group has commissioned an independent third-party consultancy to assist in performing a fair and just materiality assessment. Materiality assessment was conducted in three main phases: (i) identification of 34 potential material ESG issues that may affect the Group's business or stakeholders based on relevant national and local standards and policies, industrial characteristics and the Groups' own development; (ii) invitation of both internal and external stakeholders, including directors, the management, employees, customers, suppliers and the community, to complete a set of questionnaires in understanding their concern towards each issue; (iii) analysis of 65 questionnaires collected and identification of the priority of potential material issues by the following materiality matrix.





ABOUT THE GROUP

Environment	Labour Practices	Operation Practices	Community Investment
1. Compliance with environmental protection laws and regulations 2. Exhaust gas management 3. Greenhouse gas ("GHG") emission 4. Waste management 5. Recycling 6. Energy management 7. Water resources management 8. Clean production 9. Green office 10. Green energy project 11. Green building 12. Environmental and natural resources management	13. Compliance with labour laws and regulations 14. Employees' remuneration and benefits 15. Employees' working hours and holidays 16. Employee diversity and equal opportunity 17. Employee engagement and communication 18. Talent attraction and retention 19. Occupational health and safety 20. Employee training and development 21. Prevention of child labour and forced labour	22. Compliance with product and service-related laws and regulations 23. Supplier management 24. Product and service quality 25. Customer health and safety 26. Customer service 27. Intellectual property protection 28. Research and development 29. Information safety and privacy protection 30. Anti-corruption	31. Charity 32. Impact on the community 33. Promotion of local employment 34. Community communication

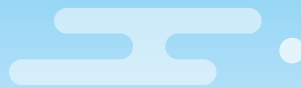




ABOUT THE GROUP

Through reviewing the above materiality matrix, the Group has identified 7 material issues which are disclosed in details in the corresponding sections of the Report.

Material Issues	Corresponding Sections
1. Compliance with environmental protection laws and regulations	Pollution Prevention and Emission Management, Resources Consumption and Conservation
2. Exhaust gas management	Pollution Prevention and Emission Management, Energy Conservation improvement
4. Waste management	Pollution Prevention and Emission Management, Green Office
13. Compliance with labour laws and regulations	Employment Policy and Labour Practices, Occupational Health and Safety
14. Employees' remuneration and benefits	Employment Policy and Labour Practices, Talent Development, Caring For Employee
22. Compliance with product and service-related laws and regulations	Supplier Management, Safe and Stable Electricity Supply, Innovation and Invention, Privacy Protection
30. Anti-corruption	Anti-Corruption



FULFILLMENT OF ENVIRONMENTAL MISSION

2018 is the year for the carrying-out of supply-side structural reform in China. The Group keeps on shouldering the mission of developing clean and low-carbon energy, continues to advance with stability, and leads the nation towards sustainable development. The Group actively responds to the nation's call and strictly complies with environmental protection laws and regulations such as the Environmental Protection Law of the PRC, Law of the PRC on the Prevention and Control of Atmospheric Pollution, Law of the PRC on the Prevention and Control of Water Pollution, Law of the PRC on Prevention and Control of Environmental Pollution by Solid Wastes and Law of the PRC on Environment Impact Assessment, and industrial standards and the requirement of ISO14001 Environmental Management System to continually improve and enhance the existing environmental management system, strengthen environmental risk control and raise all employees' environmental awareness and sense of responsibility.

FOCUSING ON GREEN ENERGY

The Group upholds the development strategy of “rooted in Beijing, tapping into Beijing, Tianjin and Hebei area, covering the whole country and expanding to overseas market”, and actively utilizes advantages in its main business to support the construction of ecological civilization. As of the end of the Year, the Group's total installed capacity amounted to 8,667 MW, with the total environmental investment of RMB205.464 million. Standard gas usage for power generation was 4,069.85 million cubic meter, which was equivalent to 5.41 million tons of standard coal usage. The total power generation during the Year was 27.831 billion kWh, representing a 16.03 million tons of reduction in emission of carbon dioxide.

Business Type	Installed Capacity (MW)	Total Power Generation of the Year (100 million kWh)	Number of New Projects of the Year
Gas Power and Heat	4,702	19.344	1
Wind Power	2,348	5.112	–
Photovoltaic Power	1,168	1.521	6
Hydropower	449	1.854	–



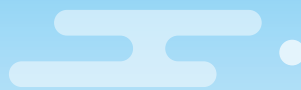


FULFILLMENT OF ENVIRONMENTAL MISSION

POLLUTION PREVENTION AND EMISSION MANAGEMENT

The Group's principal business is clean energy supply, which generates exhaust gas, wastewater, solid waste and noise during the production process. Exhaust gas mainly comes from power generation facilities, gas hobs and fuel consumption of vehicles, which emit sulphur oxides (SO_x), nitrogen oxides (NO_x), particulate matter (PM) and smoke. Exhaust gas emitted from power generation facilities is purified by related environmental facilities before emission. Wastewater is mainly industrial wastewater and domestic sewage, which are discharged after being treated by relevant wastewater treatment facilities and satisfying prescribed standards. Non-hazardous wastes are mainly domestic garbage, which are transferred and handled by local municipal environmental and hygiene departments or cleaning companies to a designated location after centralized collection. Hazardous wastes mainly include obsolete electric panels, obsolete chargers, waste oil, discarded resin, waste chemicals, waste batteries and obsolete light tubes, etc. In compliance with relevant laws and regulations such as the Regulations on the Safety Management of Hazardous Chemicals and Standard for Pollution Control on Hazardous Waste Storage (GB 18597-2001), we adopt measures to prevent poisoning, infection and leakage in waste collection, storage and transportation. All hazardous waste are then transferred to a qualified third-party unit or recycled by manufacturers for hazard-free treatment to ensure that no pollution is brought to the surrounding environment. In order to reduce the environmental impact caused by waste disposal, we recycle as much waste as possible, turning wastes into resources. In the meantime, noise control facilities have been set up at the main source of noise pollution to ensure the conformity to the requirements of local environmental department.

To strengthen environmental supervision, ensure a safe, stable and economical operation of environmental facilities, and avoid any substantial impacts caused by wastewater, exhaust gas, solid waste and noise generated from production processes, the Group continues to strictly implement internal environmental management system such as environmental protection management standards and supervision guidelines on environmental protection technologies, and submits environmental statistical analysis on the conditions of exhaust gas and wastewater treatment to relevant environmental department on a monthly basis. Corrective measures for significant emission events will be formulated to ensure that the pollutant emissions are compliant with the standard. During the Year, the Group's emission data were as follows:



FULFILLMENT OF ENVIRONMENTAL MISSION

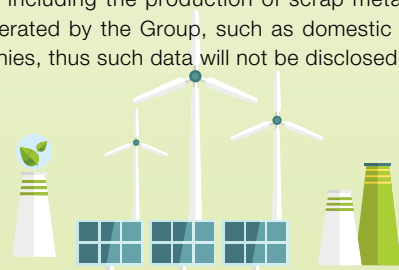
Emission	2018	2017
Exhaust gas		
Nitrogen oxides ¹ (tons)	1,237	1,227
Sulphur dioxide ² (kg)	13	39
Particulate matter ³ (kg)	298	1,009
GHG emission		
Total GHG emission (Scope 1, 2 and 3) (ten thousand tons CO ₂ e)	886	799
GHG emission intensity (ten thousand tons CO ₂ e/hundred million kWh)	3.18	3.16
Waste		
<i>Non-hazardous Waste⁴</i>		
Total non-hazardous waste produced (tons)	582	N/A
Intensity of non-hazardous waste (tons/hundred million kWh)	2.09	N/A
<i>Hazardous Waste</i>		
Total hazardous waste produced (tons)	83	43
Intensity of hazardous waste (tons/hundred million kWh)	0.30	0.17

¹ The data include nitrogen oxides emitted from power generation equipment and vehicles.

² The data only include sulphur dioxide emitted from vehicles.

³ The data only include particulate matter emitted from vehicles.

⁴ The Group has disclosed data on non-hazardous waste since this Year, including the production of scrap metal, waste paper, waste glass and waste plastics. Other non-hazardous wastes generated by the Group, such as domestic garbage and food waste, are collected and disposed by third-party cleaning companies, thus such data will not be disclosed.





FULFILLMENT OF ENVIRONMENTAL MISSION

RESOURCES CONSUMPTION AND CONSERVATION

In relation to new energy development and use, increasing the wind and solar resources utilization rate is the focus of the Group at the initial stages of every project. Therefore, the Group has embedded these core principles into every aspect of project construction and operation. Ranging from the aspects of project's site selection, initiation, electricity generation estimation, equipments selection to management on power-generating equipments, electricity conservation and improvement of the model of the equipments operation during the project operation, we have established associated management systems and measures. The Group also welcomes essay submission on technology and implements reward policies annually to encourage improvements on production technologies and electricity generation rate etc.

In an attempt to enhance the economic efficiency of power-generating equipments, reduce the loss and wastage of resources from production to consumption and to raise effectiveness and appropriateness of resources utilization, the Group formulates and implements a set of internal energy conservation methods with reference to national laws and industrial regulations, such as the Energy Conservation Law of the PRC and Electric Power Industry Energy Conservation Techniques Supervision Regulation. Our energy conservation methods include:

- Establish a leading group on energy conservation management, lay down regulations on energy conservation regularly, arrange ratings and assessments for energy conservation and emission reduction, as well as include energy conservation as one of the criteria for the assessment of production and operation management level in each company;
- Research and combine advanced domestic and international experience on energy conservation, introduce, incorporate and develop advanced energy conservation technology, which will be educated and promoted within the Group;
- Actively apply new designs, equipments, technologies and materials during the design and selection process of new generator sets so as to lay a solid foundation on the long-term safe, stable, economic and eco-friendly operation after the commencement of production;
- Reduce energy and water consumption of generator sets, enhance the design efficiency of equipment and increase operational benefits of generator sets through implementation of numerous measures such as operation optimization, equipment overhaul and technology transformation;
- Establish energy conservation training system for management and production personnel to build up their overall sense of energy conservation.



FULFILLMENT OF ENVIRONMENTAL MISSION

The Group's direct resources consumption mainly comprises of fuels such as natural gas, diesel, gasoline, and water. The Group's electricity generation mode is self-generation for self-consumed with excess power fed back to the grid, while extra electricity are purchased from the State Grid for production and operation needs. Through the joint efforts of employees from various departments in environmental protection and adhering to the internal principle of resources conservation, the total water consumption of the Group continues to decline year by year and there is no issue arisen in sourcing water. During the Year, energy and water resources consumption of the Group were as follows:

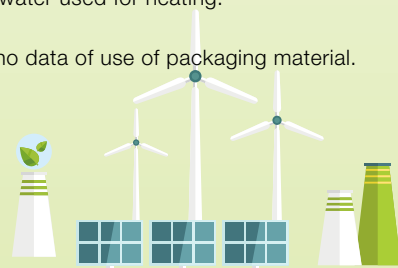
Use of Resources	2018	2017
Energy		
Total energy consumption (MWh)	44,606,201	40,096,572
Energy consumption intensity (MWh/hundred million kWh)	160,275.24	158,716.59
Direct energy consumption (MWh)	44,536,661 ⁵	39,898,088
Indirect energy consumption (MWh)	69,540 ⁶	198,484
Water⁷		
Total water consumption (m ³)	1,720,241	1,801,203
Intensity of water consumption (m ³ /hundred million kWh)	6,181.02	7,129.81
Packaging material⁸		
Total packaging material used (tons)	Not applicable	Not applicable
Packaging material used for each product (tons)	Not applicable	Not applicable

⁵ Direct energy consumption includes 44,011,996 MWh natural gas, 8,026 MWh diesel, 582 MWh gasoline and 516,057 MWh self-generated electricity consumed.

⁶ Indirect energy consumption includes 69,540 MWh purchased electricity.

⁷ Data herein only include the amount of tap water, excluding the amount of water used for heating.

⁸ The Group's business does not involve any product packaging and hence no data of use of packaging material.



FULFILLMENT OF ENVIRONMENTAL MISSION

ENERGY CONSERVATION IMPROVEMENT

Being a responsible clean energy supplier, the Group upholds the philosophy of environmental protection and puts energy conservation, energy efficiency enhancement and environmental pollution reduction as the inner motives and self-conscious pursuits for the sustainable and healthy development of the enterprise. To further eliminate pollutant emission, reduce resources depletion and improve the surrounding ecological environment, each subsidiary of the Group continues to increase investment in environmental protection, and upgrade and transform generators and environmental facilities for energy conservation and emission reduction.

Jingxi Power

- After the completion of SCR denitrification system's technological retrofitting in No. 2 boiler, emission concentration of nitrogen oxides decreased significantly. Under the condition that nitrogen oxides concentration at the outlet of the gas turbine was no more than 50mg/Nm³, the removal efficiency of nitrogen oxides exceeded 90% with SCR nitrogen oxides emission concentration no greater than 5mg/Nm³ at the outlet. The goal of ammonia escape rate lower than 3ppm was also achieved.

Jingfeng Gas

- Collaborated with a professional institution to invent direct-injecting ammonia SCR denitrification techniques, which was successfully applied in large-scale gas-fired machines. Denitrification system was fully put into operation in large-scale gas-fired machines to manipulate nitrogen oxides emission concentration at levels below 15mg/Nm³. The annual reduced amount of nitrogen oxides emission of F grade machine is approximately 300 tons;
- Replaced 67 outdated models of generators with new, highly efficient generators which saves 4% of energy.

Jingyang Power

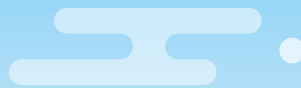
- With the accomplishment of automatic control of the generator sets and DEH Control System modification, actuation time was reduced to 65 minutes from 135 minutes and idling time was reduced to 30 minutes from 74 minutes, which enhanced the machines' automation standard and lowered its actuation cost and energy consumption.

Gaoantun Power

- Retrofitting of start-up boiler has been carried out by using a low-nitrogen burner and setting up a flue gas recirculation system. Nitrogen oxides concentration was successfully mitigated to less than 30mg/Nm³ from 178mg/Nm³.

Jingqiao Power

- Retrofitting of low-nitrogen technology of denitrification system in residual heat boilers was completed. By constructing a three-dimensional model to simulate and optimize the denitrification system, the ammonia escape rate was effectively reduced and nitrogen oxides emissions were controlled within 11mg/Nm³ to achieve half-emission reduction and to ensure denitrification efficiency and automatic control of ammonia injection.



FULFILLMENT OF ENVIRONMENTAL MISSION

GREEN OFFICE

The Group advocates the concept of low-carbon and eco-friendly office, and encourages all employees to save resources bit by bit by reducing the consumptions of water, electricity, paper, and office supplies from daily operation in order to reduce energy consumption, pollutants and GHG emission. Measures that the Group has implemented to conserve water, electricity, paper and office supplies are as follows:

Water Conservation

- Enforce daily maintenance on water meters, water pipes and water appliances to prevent water leakage and dripping;
- Put up slogans of water conservation in toilets.

Electricity Conservation

- Put up slogans of electricity conservation in office areas;
- Remind staff to turn off electric appliances and office equipments when not in use and reduce the standby time of office equipments;
- Fully utilize natural lighting and wind to reduce the use of lighting equipments and air-conditioners;
- Promptly adjust air-conditioners' temperature according to seasonal changes, and keep the office temperature around 26°C in summer;
- Carry out maintenance and cleaning of air-conditioners regularly to ensure they are in proper functioning;
- Use energy conserving luminaire, avoid using lights throughout the day or light loss, and adjust lights according to weather and seasonal conditions.

Paper and Office Supplies Conservation

- Put up slogans of paper conservation in office area;
- Advocate duplex printing, store up single-sided printed papers for future reuse;
- Use refillable toner cartridges whenever possible to reduce the frequency of buying new toner cartridge;
- Accelerate e-business progress, advocate paperless office;
- Fully utilize email, intranet, communication software etc. to deliver messages and circulate documents, reduce copying and printing of documents;
- Reduce the use of disposable products such as paper cups, prioritize the purchase of recyclable or energy efficient office supplies.

Business Trips

- Put up promotion slogans about green office in the office bulletin board;
- Adopt video conferences to reduce unnecessary business trips;
- Encourage staff to use eco-friendly travelling methods;
- Reduce the use of vehicles, carry out vehicle maintenance regularly to reduce oil consumptions.



FULFILLMENT OF ENVIRONMENTAL MISSION

ECOLOGICAL CONSERVATION

During the process of project development, construction and operation, the Group attaches great importance to biodiversity and animal habitat protection through the protection and recovery work in environmental supervision, land, vegetation and ecology. We strive to alleviate the ecological and environmental impacts brought by our production and operation activities to create a healthy and harmonious ecological environment. For instance, Australian project halts the operation of four wind turbines from November to March every year for the migration of large owls. The aspiration of the Group on bird protection has been highly appreciated by the local government.

In addition, the Group promotes volunteerism on environmental protection by encouraging the staff to participate in environmental charitable activities, such as garbage cleaning and tree planting to contribute to environmental protection.

Wujiaqu Photovoltaic Power Station – Tree planting

On 13 April 2018, Wujiaqu Photovoltaic Power Station organized tree planting for all staff to plant more than 70 tree sprouts like populus and padus virginiana inside and outside the power station. With the meticulous planting process, from seeding, earthing up to watering, the power station has gained new vitality. Employees also promised to undertake future sprouts protection work to improve greening in the power station and create a vibrant green home.



CONCERNING EMPLOYEE BENEFITS

Upholding the management philosophy of “people-oriented and pursuit of excellence”, the Group endeavors to create a comfortable and healthy working environment as well as a harmonious and excellence-driven working atmosphere, and strives to build a talent team with outstanding competency. The Group strictly complies with the relevant labour laws and regulations such as the Labour Law of the PRC, Labour Contract Law of the PRC, Company Law of the PRC, Social Insurance Law of the PRC and Law of the PRC on the Prevention and Control of Occupational Diseases. We care for both the physical and mental health of our employees by protecting their legitimate interests and rights. Through constantly improving the human resources management system, employee allocation, training, assessments and reward system as a whole, we aim to fully develop our talents’ potential, utilize their individual values, optimize the talent structure and facilitate the growth of our employees together with the enterprise.

EMPLOYMENT POLICY AND LABOUR PRACTICES

The Group adopts a fair and non-discriminative employment policy and strictly conforms to a series of internal management measures and systems related to recruitment, hire, resignation, remuneration, employee assessment and training. Hence we employ, assess, train and manage employees with no discrimination on grounds of gender, age, race or religion. As for the end of the Year, the Group had 2,764 employees in total. The age of employees shows a rejuvenation tendency, with 50% of employees aged below 35 years old. The education level of employees is generally high, with almost 55% of employees holding a bachelor’s degree or above. The details of age and the education level of employees are as follows:

Indicators	2018		2017	
Age Demographic				
Age	Number	Ratio	Number	Ratio
35 or below	1,342	49.16%	1,381	49.98%
36 to 45	623	21.89%	647	23.42%
46 to 55	717	26.24%	660	23.89%
56 or above	82	2.71%	75	2.71%
Total	2,764	100.00%	2,763	100.00%
Education Level Demographic				
Education Level	Number	Ratio	Number	Ratio
Doctoral	2	0.07%	4	0.15%
Master	230	8.41%	229	8.29%
Bachelor	1,321	46.02%	1,252	45.31%
College education or below	1,211	45.50%	1,278	46.25%
Total	2,764	100.00%	2,763	100.00%



CONCERNING EMPLOYEE BENEFITS

The Group mainly adopts an open recruitment method to the public and is complementary with internal recommendations. During the recruitment process, the Group selects suitable talents who meet the job or work requirements based on the criteria such as academic background, moral, ability, experience and physique with reference to the principle of professionalism, integrity, transparency and fairness. This ensures that the Group has appropriately employed the right people for the right position so as to foster a diversified talent team formation. The Group strictly abides by relevant laws and regulations such as the Provisions on the Prohibition of Using Child Labour, and verifies the identity documents of the applicants to ensure a legal employment with a labour contract. The Group prevents child labour and any forms of forced labour. Upon the receipt of employee resignation notice, the Group not only performs resignation procedures and settles the salary payment according to the regulations, but also arranges an interview to communicate and understand the reasons of leaving, as well as collect their opinions and suggestions, which further helps to improve the Group's business operation.

On the basis of the responsibility system for post targets, the Group establishes an overall employee performance assessment system to fully implement the reward mechanism. Remuneration management will be conducted in pursuance of the principle of fairness, motivation and legality. Employee remunerations comprise of basic salary, and performance bonus, which is calculated based on employee's monthly attendance, rewards and punishment. Moreover, with the ability-oriented principle, the Group conducts annual employee assessments and gives scores based on their working attitude, competence and professional knowledge. The assessment result is used as a significant reference for the annual rewards to determine the final amount of the employee remunerations. The implementation of individual performance assessment helps employees to unleash potential and make continuous contribution, which also motivates and disciplines them at the same time.

In relation to working hours, the Group adopts a fixed working hour system in which employees work eight hours per day and forty hours per week. Overtime working is not advocated and any forced labour act is prohibited. Employees are entitled to deferred leave or shift leave if they are required to work overtime.

Indicators	Unit	2018	2017
Number of management at mid-level or above	Person	381	394
Number and ratio of female management at mid-level or above	Person (%)	55 (14)	57 (14)
Number and ratio of male management at mid-level or above	Person (%)	326 (86)	337 (86)
Number of physically challenged employees	Person	17	11
Signing rate of employment contract	%	100	100
Coverage rate of social insurance	%	100	100
Percentage of employees joining the labour union	%	96	100
Average paid annual leave	Day	9	9



CONCERNING EMPLOYEE BENEFITS

TALENT DEVELOPMENT

Talents are the driving force of enterprise development. The Group always emphasizes on employee training and development to leverage the management level of the enterprise, improve employees' overall quality and build talent teams with exceptional abilities. The Group strictly executes employee training management measures. The training management system covers company level, departmental level and frontline safe production level, and forms systemic, professional and diversified training courses. The Group also focuses on the practicality of training and provides targeted training for employees in accordance to development strategy of the enterprise and the professional needs of each position. Meanwhile, the Group also encourages employees to participate in external training on their own, which increases the opportunities for employees to exchange and learn, and broadens their horizons. Employees are required to undergo evaluation after training, which reflects their mastery of the training contents, explores employees' potential and continually improve the effectiveness of training. In order to strengthen the employees' emphasis on their own skills, the Group includes the training as a criterion of performance appraisal by implementing a training assessment mechanism. The Group also implements promotion management systems such as management measures on mid-level management and cadres selection to enhance the selection and training of outstanding employees, and keeps the team's vitality and vigor.

During the Year, based on its enterprise features and focusing on the reality, the Group created a series of management training programs to keep on increasing professional efficiency and cultural literacy. Position-specialized training, new employee inductions and frontline employee technological skill trainings are also provided based on actual business production and technical characteristics. The training program contains various topics and conducts in different modes. A total of 38 types of training were carried out with training coverage of 100% and training time per capita having exceeding 150 hours, fostering employees' comprehensive capability remarkably.

Indicators	Unit	2018	2017
Number of employees trained (total number of employees attending training)	Person-time	88,146	76,036
Total investment for employee training	Ten thousand RMB	488	650
Coverage rate of employee training	%	100	100
Total hours of employee training	Hour	417,205	378,106
Training hours per capita	Hour	150	137



CONCERNING EMPLOYEE BENEFITS

Weilai Power – Basic Legal Training on Taxation Law and Wealth Management Knowledge

To enhance employees' level on wealth and taxation management knowledge and build up their legal concept of taxation, Weilai Power introduced basic legal training on taxation law and wealth management knowledge on 22 November 2018. Weilai Power invited a senior partner of a law firm to give lectures on taxation policy and practical operation by elaborating basic knowledge of taxation law and wealth management, especially the individual tax reform in which the employees concerned about. During the training, employees had vigorous discussions on special additional deduction and their questions were answered thoroughly by the lecturer. This training allows employees to raise their legal consciousness towards compliant tax payment, further understand their legal rights, fulfill their legal obligations and shoulder their family and social responsibilities.



New Energy – Technological Supervision Training

On 19 December 2018, New Energy conducted a training on wind turbines, photovoltaic technological supervision, as well as maintenance and prevention experiments on power transmission and transformation equipment in the form of video conference, with a total of 57 employees from each subsidiary and affiliated stations participated in the training. This training allows employees to have a deeper understanding of wind turbines, photovoltaic technological supervision and work related to maintenance and prevention experiments of power transmission and transformation equipments, which enhanced their skill levels in technological supervision management, as well as malfunction-solving abilities with respect to dispatching automation and communication equipment, and enabled them to understand the overall safety and protection requirements of electrical supervision systems, establishing a solid foundation of the company's technological supervision management.



CONCERNING EMPLOYEE BENEFITS

OCCUPATIONAL HEALTH AND SAFETY

The Group strictly implements the internal management systems such as occupational health management measure and labour protective equipments management measure to perform occupational safety supervision, so as to provide a working environment and condition according to the national occupational health and sanitation standards. New employees are required to receive production safety education and technical safety training organized by the production safety department, and to sign relevant documents such as safety protocols and complete pre-job health check. Employees are only allowed to proceed to admission procedures after the training and passing the examination. At the same time, the Group actively conducts technological renovation, strengthens protection for employees with special duties, arranges health check for employees, monitors occupational risk factors at the workplace, formulates emergency plans and performs regular drillings in order to prevent and control occupational hazards. Caring for the mental well-being of our employees, the Group organizes mental health training courses and counseling activities. In addition, the Group avoids assigning pregnant or postpartum employees to perform duties that may pose harm to fetus or infant baby pursuant to the national Special Rules on the Labour Protection of Female Employees, so as to safeguard female employees' labour rights during pregnancy, maternity and lactation.

Jingxi Power – “Stress Relief, Happiness Release from Heart” Psychological Health Training

During the Year, Jingxi Power organized a psychological health talk named “Stress Relief, Happiness Release from Heart” in order to express our solicitude towards employees' mental health, promote mental health knowledge and help them to relieve work pressure. The talk was delivered by national Grade 2 counseling psychologists on themes related to mental health and stress management. Through theory introductions, case studies and in-class activities, the talk encouraged employees to change their mentalities and have a proper understanding about mental health so as to improve their ability of self-adjustment at work. The talk also contained a drawing session, in which employees expressed their subconscious thought by drawing. This helped employees to manage emotions properly and relieve stress timely. The talk not only allows employees to understand mental health issue properly and learn preliminary solutions to stress and mental problems, but also allows the company to gain invaluable experience on implementing policies to care employees.



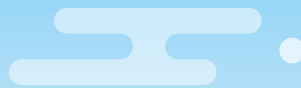
Southwest Branch – Prevention on Occupational Diseases Hazards in Power Station

During the Year, Southwest Branch has commissioned a consultancy company to provide technical guidance on the prevention of occupational health in Dachuan Power Station pursuant to the relevant national and local laws and regulations, technical standards and requirements, such as the Law of the PRC on the Prevention and Control of Occupational Diseases and Sichuan Province Plan for Prevention and Control of Occupational Diseases. It was done to make thorough preparations for occupational diseases prevention and control by utilizing their technology and professionalism of the occupational health service agency. The consultancy company conducted key review on the implementation of occupational health accountability, inspections of occupational hazards at workplace and emergency plans for occupational diseases and production safety of Dachuan Power Station. It then listed out potential problems at the workplace and the corresponding corrective measures with relevant guidance to the power station, which lays a solid foundation for prevention and control of occupational diseases in the power station.

Keyouzhong Wind Power Station – Publicity of Law on the Prevention and Control of Occupational Diseases

In an attempt to broaden the knowledge on occupational disease prevention and control, and raise the awareness and ability of self-protection, Keyouzhong Wind Power Station launched a publicity and educational activity related to the Law of the PRC on the Prevention and Control of Occupational Diseases with the theme of “Healthy China and Occupational Health in advance” on 20 June 2018. Through on-site introduction, displaying posters and distributing promotional materials, employees learnt knowledge about the terms related to the Law of the PRC on the Prevention and Control of Occupational Diseases, liabilities of occupational diseases of the employer, occupational health check, statutory occupational health protection rights and responsibility of the labour, and work injury insurance arrangement for patients with occupational diseases. This publicity activity allows employees to recognize the significance of occupational diseases prevention and control, and thus raise their self-protection awareness and ability on occupational diseases prevention and control.





CONCERNING EMPLOYEE BENEFITS

CARING FOR EMPLOYEE

Employee Welfare

In accordance to internal management systems such as social insurance and housing provident fund, enterprise basic medical insurance and labour welfare, the Group offers a number of welfare and settles social insurances and housing provident fund for employees according to laws. Employees are entitled to holidays such as national statutory holidays, public holidays, paid annual leave, sick leave, home leave, marriage leave, funeral leave and maternity leave, and allowances including heatstroke prevention subsidy and winter heating allowance. In addition, with building a harmonious labour relationship as the outset, the Group increases welfare benefits such as funds for Children's Day and reimbursement for children's medical expense according to its own economic efficiency, which aims to enhance the sense of belonging and brings happiness to employees.

For the convenience of physically challenged employees at work, the Group has gradually launched renovations of barrier-free facilities at the workplace to ensure their accessibility, safety and convenience. The Group also communicates with them regularly to understand and help them to overcome difficulties at work and their daily lives.



CONCERNING EMPLOYEE BENEFITS

Employee Activities

To reach work-life balance and consolidate the relationships among colleagues, the Group organized multifarious sports and cultural activities for employees, such as the sports cultural festival, festive party, speech contest, fun sports day, food cultural festival, baking class, cocktails class and chess tournament etc.



Woman's Day Event



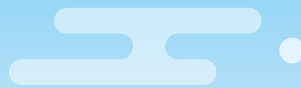
Soccer Competition



Chess Tournament



Sports Cultural Festival



CONCERNING EMPLOYEE BENEFITS

By holding skills competition and labour emulation, the Group provides rich rewards to employees with outstanding performances in order to incentivize employees' enthusiasm and innovation towards work, improve their technical operating skills and enhance the formation of talent teams with high quality.

New Energy – The 8th “Jingneng Cup” Wind Turbine Operation Skills Competition

The 8th “Jingneng Cup” was held in Huhemachang Wind Power Station in Ulanhot, Inner Mongolia, from 12 October 2018 to 14 October 2018. This skills competition was hosted by the New Energy Labour Union, organized by Shenyang Branch, with about 90 participants consisting of each branch's leaders, contestants and professional judges. The skills competition was composed of three parts: theory examination, wind turbines practical operation and box substation practical operation. Judges who possess expertise in wind turbines and box substation operations would assess contestants' theoretical knowledge and ability of actual operations with reference to the level of national wind turbine technology standards. Entering into the 8th skills competition, New Energy actively created an atmosphere of “compete, learn, surpass, help and excel”. With the high-level of competition to explore the potential of employees, New Energy builds up an elite team equipped with superior work ethics, business skills, professional manners and work performances, which assists the Group to become a world-class comprehensive energy service enterprise.



Helping Employees in Difficulties

Employees create corporate values for the enterprise, but they also need the care and solicitude from the enterprise. Upholding the philosophy of “people-oriented”, the Group strives to create a caring and harmonious big family by concerning employees' immediate interest and providing assistance to tide over their crisis. Under the assistance mechanism for employees in difficulties, the Group provides assistance to employees in difficulties. Through filing profiles of employees with hardship, we regularly visit and investigate the life situation of the employees to understand and grasp the living conditions of employees in difficulties. According to the difficulties the employees encountered in medical care, living and children schooling, respective assistance is provided to the employees, achieving targeted poverty alleviation. During the Year, the Group has invested RMB103,000 in assisting employees in difficulties and 28 employees were financially helped.





IMPROVING PRODUCTION AND OPERATION

In the course of development, the Group has been striving for perfection through constantly improving every part in the business operation and conducting scrutiny on the origin and process control, so as to make contributions to the society by continually deliver safe and stable power supplies. Due to the business nature of the Group, it does not involve in advertising or labeling relating to products or services.

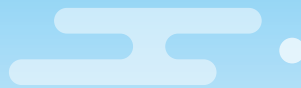
SUPPLY CHAIN MANAGEMENT

In relation to suppliers and tendering, the Group has established an internal management system, under which entrance, assessment and improvement of suppliers are formulated, in order to reduce procurement risk and ensure that the procurement supplies can satisfy business competition requirements which in turn optimizes the supply chain management values. We regularly evaluate the performance of current suppliers in terms of their corporate management level, credibility, product quality, delivery and service, with quarter and annual reviews as well as the integration of business and production reviews to achieve centralized management, dynamic assessments, assistance to competent supplier and elimination of incompetent ones. New suppliers will only be added into a list of qualified suppliers after being accredited by the Group. At the same time, in compliance with the Bidding Law of the PRC and other relevant laws and regulations, the Group strengthens suppliers risk management, advocates fair competition, adopts zero-tolerance to crimes such as fraud, corruption and commercial bribery, and boosts and enhances accountability and ability of suppliers.

In addition, in order to facilitate the business partners to fulfill their social responsibility continually and create a sustainable supply chain, the Group includes social responsibility into supply chain management, imposes requirements regarding the compliance of laws and regulations, environmental protection, labour rights and operation integrity upon suppliers. The Group also sets up social responsibility training mechanism with regards to suppliers, offering training courses on environment, health and safety, which facilitates the fulfillment of suppliers' responsibility. During the Year, the Group's cooperative suppliers had no significant negative news.

SAFE AND STABLE POWER SUPPLY

Production safety is the foundation and security of enterprise development. Pursuant to the Production Safety Law of the PRC and Regulations of Beijing Municipality on Production Safety and other relevant laws and regulations, the Group persists in the management approach of "safety first, prevention as principle, and governance as whole", and improves and implements a series of production safety related internal systems, such as production safety responsibility system and investigation and governance of accidents and uncertainties, under which production safety duties of employees at all levels are specified. The Group also enhances management and supervision on fire control, stipulates transport, storage and use of flammable and explosive products, organizes production safety training extensively, initiates "Production Safety Month" regularly, improves reporting and investigation procedures of production safety incidents, and strengthens the inspection and management of potential safety risks, so as to secure a safe and stable power supply.



IMPROVING PRODUCTION AND OPERATION

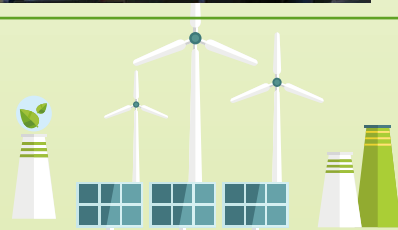
Shenyang Branch – Production Safety Training

To enhance the safety awareness of employees and uphold the philosophy of “prioritize life, safety first”, Shenyang Branch has invited the chief lecturer of Shenyang Safety Administration and senior safety trainer of Dongfang Electric Wind Power Plant to give training on production safety from 26 April 2018 to 28 April 2018. The training integrated the national production safety trends in recent years, and revolved around the implementation of collective responsibility in production safety, safety protection in wind turbines operation and prevention of accidents. During the training on wind turbines safety, lecturer focused not only on the risks and preventive measures of wind turbines operation, but also an in-depth explanation of wind turbines contingency measures, which allows employees to understand every potential danger of all kinds of wind turbines operation and hence to facilitate future execution and specification of production safety rules and system and secure equipments’ safe and stable operation.



Jingfeng Gas – Activities of “Production Safety Month”

In respond to the 17th “Production Safety Month” of the country and the theme of “prioritize life, develop safe”, Jingfeng Gas proposed different themes for each week in June 2018, including safety education week, electric safety week, emergency drills week, and awareness education week. Manifold production safety activities are carried out to promote safety culture to employees and to create a strong atmosphere for production safety as a means to achieve zero production safety accidents in wind power stations. Jingfeng Gas has particularly organized “Safety Risks by Snapshot” activity amid Safety Production Month to encourage all employees to participate in the governance work of potential safety risks. Appropriate rewards were given to employees who have successfully identified risks or “three violations” that are present, difficult-to-detect and easily overlooked. The safety supervision department recorded the collected information of safety hidden risks and determined the responsible department, personnel and time limit for rectification work implementation. The “Safety Production Month” fosters the development of safety culture as well as the stable and healthy growth of the enterprise.



IMPROVING PRODUCTION AND OPERATION

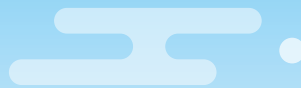
During the Year, the Group continued to adopt the production safety management principle by achieving the production safety goals of “ten preventions”⁹, promoting safety facilities of “three simultaneous”¹⁰ and signing the safety goal pledge and individual “four not-harming”¹¹ agreement with each level involving in direct projects. Through conducting various safety inspections in spring and autumn, and safety evaluation, such as “spring inspection”, “autumn inspection”, license-holder check, summer peak inspection, wind power station annual inspection, inspection of flood-control, wind-proof, fire-proof, freeze-proof and frost-proof, and inspection on potential safety risks of fire control, so as to carry out comprehensive inspection on all business sectors with rectification and tracking against identified problems to be conducted, which allows potential risk management and rectification to become frequent and systemic. Furthermore, the Group reinforces facility management, underscores facility maintenance, optimizes operating maintenance method and enhances the operational level of generator set in accordance to the operation characteristics of each business sector. During the Year, the Group had no record of accidents involving employees and equipment. The average hour of wind power and photovoltaic power usage are higher than the national level.

Indicators	Unit	2018	2017
Investment for safety production	Ten thousand RMB	6,699	5,370
Number of emergency drills	times	454	356
Participants of production safety training	Person-times	48,155	48,963
Number of significant equipment accident	times	0	0
Number of general equipment accident	times	0	0
Number of casualties and fatalities of employees	%	0	0
Number of unscheduled stoppage	times	12	8
Equivalent availability factor of unit	%	93.79	93.88

⁹ No personal death, serious accidents involving more than three people, no significant fire accidents, no significant equipment accidents, no significant vicious misoperations, no power outages of the whole station and serious damage to the grid safety, no water and ash dam accidents and significant collapse accidents, no large-scale heating stop accident, no occupational health injuries and collective food poisoning accidents, no significant accidents with equal liability or more, no accident with direct economic loss of more than RMB5 million.

¹⁰ Safety facilities and main construction work of the project are designed, constructed and put into production and used at the same time.

¹¹ No harm to others, no harm to yourself, no harm caused by others, protect others from harm.



IMPROVING PRODUCTION AND OPERATION

INNOVATION AND INVENTION

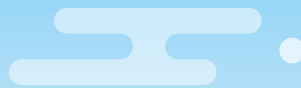
With the deep development of the reform in electrical systems, the Group is dedicated to seeking development opportunities by promoting its technological innovation to consolidate its overall technological level, bolster its market competitiveness and further unleash corporate developing potential. Established thorough technological management systems and strictly complied with relevant laws and regulations, such as the Patent Law of the PRC and Confidentiality Provisions on Science and Technology, the Group implements several internal management systems such as technological improvement incentive system and key technology project management measures, under which technological project management is stipulated to raise the safety, operating economic efficiency, equipment proper functioning level and management level of generator set so as to initiate self-innovation and development. Emphasizing the importance of technological talents training, the Group enhances employees' technological training, establishes internal technological exchange platform and encourages employees' participation in technological innovation sharing to broaden their industrial knowledge and strengthen their technological and innovative ability. The Group also sets up Technology Progress Award to appreciate and reward outstanding technological achievements and encourages employees' improvements and perfection in technology of the enterprise. During the Year, the Group has obtained 8 achievements in the 33th Beijing Management Innovation Ceremony, 4 QC Result Awards, and applied for and obtained 9 patents.



Jingqiao Power – High-Tech Industry Development Project

Responding to the call for high-tech industry development from Beijing, Jingqiao Power technology innovation team conducted on-site investigation in Beijing University of Industry, Explosion-proof Centre in Guangzhou and Yuhu Power Station in Shenzhen and introduced four innovation projects which includes the first patrolling robot used in natural gas sites in the country, the first detective robot in the country for dangerous gases, which was designed explosion-proof and obtained an anti-explosion certification, the first robot which detects the explosion scale and intensity in the country and the first detection system for hazardous gases leakage location in the country. Collaborating with Langfang Pipeline Bureau of China Petroleum, Jingqiao Power has complied international standards related to flammable gas supervision on natural gases sites, which gained not only the great endorsement of the State-owned Assets Supervision and Administration Commission of Beijing Municipality, but also successfully applied for its state-owned capital budget support. The project is now in a stable progression, with Jingqiao Power having accomplished a series of inspections and verifications such as basic robot prototype verifications, an autonomous patrolling system, explosion-proof laser detective cloud system, a video surveillance and real-time image transmission system, real-time scanning system, loophole detection system, remote control, explosion-proof and methane concentration examination system. Jingqiao Power expects that the on-site commissioning will be completed by the next year and will conduct identification and acceptance of the corresponding high-tech project to relevant technological authorities in Beijing.





IMPROVING PRODUCTION AND OPERATION

PRIVACY PROTECTION

The Group has implemented employee behavior standard and code of morality, which stipulate that employees must abide by every internal privacy mechanism and shall not disclose any exclusive data to third party unless upon approval. The Group also requests that all employees whose duties involve in internal confidential documents and intellectual property must sign the confidential agreement. With respect to key technological project, technological researchers and other relevant personnel who know or access to the confidential technological contents are subject to confidentiality obligations of the development of technological project in accordance to the agreement. Employees with intellectual property achievements shall not disclose any core technology via dissertations, journals, books or sharing without the consent of department heads during the confidentiality term. Employees shall abide by the “non-competition principle” to keep the commercial secret confidential after resignation, given that their positions involved confidential information and contents. The Group shall reserve the right to pursue legal actions under the condition of divulging secrets, which leads to great loss to the enterprise or the country.

ANTI-CORRUPTION

To maintain the honesty and integrity in corporate operation, the Group strictly conforms to relevant national laws and regulations such as Criminal Law of the PRC and Anti-money Laundering Law of the PRC, and implements internal anti-corruption systems such as employee behavior standard and code of morality to restrict and regulate the behaviors of employees. With the aim to prevent corruptive behaviors during tendering and material procurement, the Group has established stringent procurement management system and reduced the impacts arising from human factors by carrying out procurement through internal e-communication system. To prevent corruption in procurement process, we adopt online public price inquiries on material procurement so as to prohibit splitting of bills and acts that avoid bidding. During tendering process, accepting bribery and kickback or using illegal ways such as bribing to win the tendering from relevant staff are strictly prohibited as it undermines fair competition. Discussions, talks, anti-corruption educational video clips broadcast and on-site visit to anti-corruption educational institution are arranged to instill a sense of integrity to employees and to enhance the education of integrity for the personnel at key positions, so that the employees will stay alert at all time to tackle corruption. We also strengthen internal supervision by conducting regular auditing and internal inspection to ensure that employees are law-abiding and disciplined.

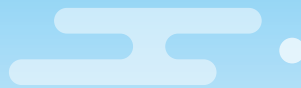
On the other hand, the Group continually strengthens the integrity within the party through executing internal systems such as management and regulations on party integrity construction and implementing accountability for party integrity construction to regulate conducts of party members. Letters of responsibility on party integrity construction are required to be signed at each level to fully implement responsibilities of exercising party self-governance and supervision. The Group has also established the prevention, punishments and anti-corruption system which emphasizes on education, systems and supervision. During the Year, the Group did not have any illegal cases or litigation cases related to corruption, bribery, extortion, fraud and money laundering.



Shenyang Branch – Field Trip To Anti-corruption Educational Institution

With a view to enhance the integrity education within the party and strengthen the corruption combating ability of party cadres, the party branch of Shenyang Branch has organized a field trip to Liaoning Province's anti-corruption educational institution to receive integrity education on 7 March 2018 with a total of 26 party cadres and members. Under the guidance of a tour guide, the party cadres and committees visited different exhibition halls and learnt the anti-corruption work carried out by the party since the 18th National Congress of the Communist Party of China, typical litigation of unlawful cases investigated by Liaoning Province and role models of demonstrating integrity in Liaoning Province through graphics, multi-media, exhibitions and sculptures, which were thought-provoking. Before ending the field trip, everyone watched a documentary, in which perpetrators introspected and showed remorse for their duty-related crimes which showed the primacy of national laws of the party and political baseline that shall not be infringed. The documentary reminded and warned the party cadres and members that they should not lose conviction and shall uphold the stance and principles of the party at all time. This field trip allows all party cadres to receive profound anti-corruption education, understand the determination of the Communist Party in stringent management and anti-corruption implementation and hence to undertake to fulfill their job responsibility and strive for more contribution.





CONTRIBUTING TO COMMUNITY HARMONY

Since the establishment, the Group has attached great importance to the welfare of the community where it operates and proactively fulfills its social responsibility as a state-owned enterprise to achieve harmonious development between the enterprise and community. On one hand, the Group espouses various charitable activities such as donations for schools, earthquake relief work and volunteer services to provide continual assistance to the needy in the community. On the other hand, the Group actively responds to the call of the national government by launching targeted poverty alleviation in many less prosperous regions to enhance their productivity and living standards and help the poor achieve self-reliance.

CHARITY AND PUBLIC WELFARE

The Group extensively organizes and encourages employees to engage in public welfare events, such as donation for schools, donation of second-hand goods and voluntary services to express our care and support towards the local community.

The Company – Participation in Mingxi Charity Foundation Association

During the Year, as one of the members of Mingxi Charity Foundation Association (the “Foundation”), the Company strongly supported the Foundation’s aim of “Serving Hong Kong and Serving the Youth”, and helped to carry out cross-regional activities targeting on youth students in Hong Kong, such as youth exchange, innovation and entrepreneurship and academic scholarships, by following the nation’s guiding principles for Hong Kong. For instance, the Foundation organised a cultural and creative summer course and a silk road cultural exchange activity in the countries along “The Belt and Road Initiative” for students during the Year to promote multicultural integration. The Foundation organised a summer internship programme in Beijing for 40 Hong Kong students, allowing students to experience the rapid development of the national capital and broaden their horizons. The Foundation has also established the “Mingxi Scholarship” to provide subsidies for secondary school students in poverty to pursue university studies. Mr. Kang Jian, the deputy general manager of the Company, was appointed as a member of the Board of Directors, and is responsible for the monitoring of the management and use of the funds in a legitimate, transparent and law-abiding manner, and hence fulfilling corporate social responsibility, serving and giving back to Hong Kong.



CONTRIBUTING TO COMMUNITY HARMONY

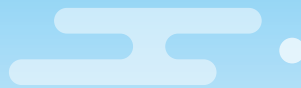
Jingqiao Power – “Capital State-owned Enterprise Open Day” Event

On 10 June 2018, the third “Capital State-owned Enterprise Open Day” was held in Beijing. Jingqiao Power welcomed 40 teachers and students from the University of Science and Technology Beijing. Through the visits and interactions at the exhibition hall, the main control room and the factory, visitors learned about the efforts and contributions of Jingqiao Power, as a green energy enterprise, in creating a blue sky dream for the people.

Visitors were impressed by the garden-styled factory of Jingqiao Power. As the first power generation enterprise nationally in Class I area that meets the standard of integrated noise management, visitors were amazed by the environmental protection technology adopted by Jingqiao Power, and realized Jingqiao Power as an environmentally friendly and energy-intensive modern enterprise.

Through the “Capital State-owned Enterprise Open Day” event, Jingqiao Power not only popularized the knowledge of gas-fired power generation and the advanced management methods of large-scale industries to the general public, but also showed the enormous changes and substantial contributions made by the capital state-owned enterprise since the reform and opening up, which enabled the public to feel the spirituality of state-owned enterprises.





CONTRIBUTING TO COMMUNITY HARMONY

New Energy – “Lei Feng Volunteer Month” Voluntary Service Events

To follow Lei Feng’s altruistic spirit towards social affairs and enhance employees’ moral qualities, New Energy launched a series of “Lei Feng Volunteer Month” volunteer service events during the Year. On 16 March 2018, about 20 voluntary youth workers participated in the key assistance work “Protecting the Great Wall” volunteer service for Shixia Village in Badaling Shixia Village in Yanqing District. To protect the surrounding environment of the Great Wall, volunteer workers collected and cleared plastic bottles, plastic bags, wastepapers and other garbage inside bushes, on branches and in corners along the rugged mountain path. On 23 March 2018, Wujiaqu photovoltaic power station supported “Lei Feng Volunteer Month” by assisting one of the villages in Wujiaqu to clear garbage and silt in irrigation canals and thus reduced the impacts of garbage accumulation to farming activities in spring and protected its irrigation water. This volunteer service built up contribution awareness and responsibilities of employees which further displayed the Lei Feng spirit.



TARGETED POVERTY ALLEVIATION

Other than engaging in public charity affairs, the Group also pays close attention to the people in difficulties in the community where it operates. We offer assistance to the needy through targeted poverty alleviation to help them overcome obstacles.

New Energy – Helping Shixia Village

With the aims of expanding the income sources and enhancing the living quality of Shixia villagers, BEH's aid team set the goal of assisting Shixia Village to develop distributed photovoltaic power in 2016 by leveraging its leading position in the new energy industry. The Group selected the roof of Shixia Village committee house as a pilot location, and started a distributed photovoltaic power project with the installed capacity of 5.4 kWp on the roof. During the Year, the party committee of New Energy continued to assist the first secretary residing in the village designated by BEH with the aid work and party branch to conduct "Two Studies, One Action" education project, and establish standardized committees activity and publicity front. Through launching party activities related to July 1 with party branch in the village and watching the live broadcast of 19th CPC National Congress, we created a strong atmosphere for party building work, adhered to the spirits of 19th CPC National Congress and strived for bettering joint development. Assistance work of the Village included close supervision on the operating condition of photovoltaic power project with 5.4 kWp on the roof of village committee house, continuous support for members of the committee in hardship, people with low income as well as voluntary services to further enhance the cohesion among village party organization.





CONTRIBUTING TO COMMUNITY HARMONY

OVERSEAS CONTRIBUTION

The Group continues to focus on sustainable development in Australia. Since the commencement of operation in Australia, the Group has always been attaching importance to the community relations in the project locations, and striving to promote harmonious economic, social and environmental development on the project sites, hence creating a responsible overseas corporate image. Every year, Australian Project engages in a variety of exchange events with the local communities, such as inviting them to visit power station facilities and communicating face to face with the staff in the power stations. Australian Project's effort to build good community relations was recognized by the local government, and was shortlisted for the finals of the Best Community Maintenance Award by the Clean Energy Council of Australia. As a new company entering the Australian market, we have achieved considerable results.

Australian Project – Visiting Wind Power and Photovoltaic Power Station Equipment

Every year, Australian Project organizes occasional site visits of its wind power and photovoltaic power station facilities for local groups for free. Through the explanation by the staff from the power stations and close observation of the wind turbines and photovoltaic modules, the public can understand the operation and technology of wind power and photovoltaic power generation, hence raising their awareness of renewable energy. On 6 November 2018, students from 3 local public schools visited the wind power station of Australian Project to experience the production process of wind power, and learnt about the knowledge of wind power.

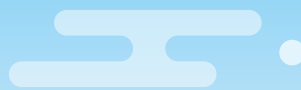


At the same time, Australian Project is actively involved in locally-organized sports activities, such as participating in the Crooksville football finals and the Rose Bowling Tour, to integrate actively into the community. The Group believes that the relationship between the operation of the power plants and local communities is the basis for enterprises to go global. The Group will continue to pay attention to the needs of the community and increase its market share while enhancing the sense of corporate responsibility.



APPENDIX: CONTENT INDEX OF ESG REPORTING GUIDE

ESG Indicators	Description	Section	Page Number
Environment			
A1 Emissions			
General Disclosure	Information on: (a) the policies; and (b) compliance with the 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.	Pollution Prevention and Emission Management	15
		Energy Conservation Improvement	19
A2 Use of Resources			
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	Resources Consumption and Conservation	17
		Green Office	20
A3 The Environment and Natural Resources			
General Disclosure	Policies on minimizing the issuer’s significant impact on the environment and natural resources	Ecological Conservation	21
Social			
Employment and Labour Practices			
B1 Employment			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination and other benefits and welfare.	Employment Policies and Labour Practices	22
		Caring for Employees	28



APPENDIX: CONTENT INDEX OF ESG REPORTING GUIDE

ESG Indicators	Description	Section	Page Number
B2 Health and Safety			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	Occupational Health and Safety	26
B3 Development and Training			
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	Talent Development	24
B4 Labour Standards			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	Employment Policies and Labour Practices	22
Operating Practices			
B5 Supply Chain Management			
General Disclosure	Policies on managing environmental and social risks of supply chain.	Supply Chain Management	33
B6 Product Responsibility			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labeling and privacy matters relating to products and services provided and methods of redress.	Safe and Stable Power Supply	31
		Innovation and Invention	34
		Privacy Protection	36



APPENDIX: CONTENT INDEX OF ESG REPORTING GUIDE

ESG Indicators	Description	Section	Page Number
B7 Anti-corruption			
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering	Anti-corruption	36
Community			
B8 Community Investment			
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	Charity and Public Welfare	38
		Poverty Alleviation	41
		Overseas Contribution	42

