

ENVIRONMENTAL, SOCIAL AND GOVERNANCE REPORT

Scope of the Report and the Reporting Period

This is the Group's first Environmental, Social and Governance report, covering the Group's overall performance in two main aspects (i.e., environmental and social) during operation of its main businesses (production and sale of coke, and the processing and sale of coking by-products), from 1 January 2017 to 31 December 2017 (the "Reporting Period").

For the Group's governance strategies, please refer to the section headed "Corporate Governance Report" of this annual report (Pages 30 to 38).

This report is prepared by the Group in accordance with the Environmental, Social and Governance Reporting Guide as set forth in Appendix 27 of the Listing Rules.

Stakeholder Engagement and Contact Information

The Group maintains close contact with its stakeholders (for instance, investors, shareholders, regulatory bodies, employees, customers and suppliers, etc.) and management and collects their views, conducts materiality assessment, and identifies and includes important environmental and social policies concerning the Group into this report.

The Group welcomes stakeholders to express their views on the environmental, social and governance principles and performance of the Group. Please provide your suggestions via email at paulwong@hnmny.com.

Environmental Responsibilities

Emissions Management

- **Relevant policies**

The Group constantly formulates and improves environmental management rules, regulations and systems, and has taken the following various measures to reduce the impact of business operations on the environment:

- o Formulate and improve environmental management rules or regulations: Environmental Protection Management Rules, Regulations on Environmental Test Management, Regulations on Air and Dust Emissions Management, Regulations on Key Sewage Outfalls Management and Regulations on Solid Waste Management;
- o Establish a sound environmental management system: forming an environmental management system with the Environmental Management Committee acting as the top management body, routine management provided by the Environmental Protection Department, technical support provided by the Technical Department, and each workstation assigned with an environmental officer responsible for environmental supervision, thus ensuring that the responsibilities of each person are well-defined. As at the end of the Reporting Period, Jinma Energy and Bohigh Chemical have obtained the certification of ISO14001 Environmental Management System;
- o Set up an incentive mechanism: formulating departmental environmental assessment plans and assessment objectives;
- o Increase the intensity of environmental inspection: focus on supervision of pollution control facilities' operations, issuing Notice of Rectification with Time Limit for identified problems, and follow up on the implementation status of rectifications; and
- o Increase technological process innovations and cooperation between industries, universities and research institutes: focus on researches to resolve prominent environmental problems, and make every effort to recycle wastewater, waste gases, solid wastes, and reduce pollutant emissions. Technologies that the Group has taken part in their research and development, including advanced water treatment, dust removal from 5.5m coke ovens, double salt extraction from desulfurized waste liquid, have won the Scientific and Technological Achievement Awards of Henan Province.

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- **Relevant laws and regulations**

The Group stringently complies with laws, regulations and standards, including the Environmental Protection Law of the PRC (《中華人民共和國環境保護法》), the Environmental Protection Tax Law of the PRC (《中華人民共和國環境保護稅法》), the Atmospheric Pollution Prevention and Control Law of the PRC (《中華人民共和國大氣污染防治法》), the Water Pollution Prevention and Control Law of the PRC (《中華人民共和國水污染防治法》), the Law of the PRC on the Prevention and Control of Environment Pollution Caused by Solid Wastes (《中華人民共和國固體廢物污染環境防治法》), and the Emission Standard of Pollutants for Coking Chemical Industry (《煉焦化學工業污染物排放標準》) (GB16171-2012).

During the Reporting Period, the Group was not involved in any material events in relation to litigation or corresponding penalties arising from violation of environmental regulations.

- **Measures to mitigate emissions and results**

The Group has taken the following series of measures to reduce air and greenhouse gases emissions, and discharges into water and land:

- o Install coke oven coal gas recycling processor to enhance the recycling rate of coke oven coal gas;
- o Install devices for dust removal from flue gases, desulfurization and denitrification, chemical exhaust gas collection etc., conduct real-time online data monitoring at exhaust outlets, link up with the municipal environmental monitoring platform, make adjustments in a timely manner to resolve potential hazards and problems, effectively control air emissions (for instance, after the Group's desulfurization project was put into operation, the concentration of SO₂ emission decreased from a peak of approximately 150.0 mg/m³ to less than 20.0 mg/m³, achieving a reduction in SO₂ emission of 193.6 tons/year);
- o Increase fugitive dust control, effectively reduce fugitive dust generated by operations such as loading, unloading and warehousing etc., by means of sweeping, water sprinkling, spraying, rinsing, and covering etc;
- o Construct and operate wastewater processing and recycling facilities such as sewage treatment station, advanced treatment station for phenolic and cyanic wastewater, reclaimed water treatment station etc.. Among these facilities, the advanced treatment station for phenolic and cyanic wastewater has undergone continuous upgrade, and is capable of treating coking wastewater to meet National Grade One Discharging Standard without using freshwater. The treated wastewater is used entirely in cooling towers, coke quenching water and advanced treatment of coke dry quenching. The wastewater treatment rate of the reclaimed water treatment station can reach 250.0 tons/hour, saving approximately 2.2 million tons of water per year; and
- o Establish a multi-directional pipeline network of integrated wastewater recycling, a centralized system for wastewater treatment controls, conduct cascade reuse and hierarchical use of all domestic and industrial wastewater of the Group, achieving "zero" discharge of wastewater.



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- Waste management, reduction measures, and results**

The methods adopted by the Group to handle wastes and reduce their production are as follows:

- o Set up a solid waste ledger for regulation-compliant storage and disposal of waste. Perform ground hardening at locations where solid wastes are generated, and set up barrier protection measures to prevent land contamination; the Group collects and transports domestic wastes to refuse handling areas; construction wastes are transported by construction contractors to construction wastes storage areas designated by the Environmental Protection Bureau; chemical reagents produced by the laboratories and their containers are recovered collectively and sent to refuse treatment plant for specialized treatment;
 - o Adopt new technology to reduce waste generation, for instance improving the modification process of coal asphalt to prevent further production of flash oil; and
 - o Integrate use of solid wastes to avoid waste disposal. For instance, recover all wastes such as tar residue, recycled asphalt residue, bituminous coal dust, and sludge derived from sewage treatment etc., and use them in coal blending and coking; and conduct advanced processing of coal tar generated by coal gas purification during the process of coke production.

- Emissions performance**

Through improved emissions management, the Group not only achieves “zero” discharge of wastewater and hazardous wastes, but at the same time also fulfils the air emission limits set by the governmental Environmental Protection Departments on the Group’s coking processes (i.e., emission volume of 210.0 tons for SO₂, emission volume of 1,700.0 tons for nitrogen oxides, emission volume of 237.0 tons for particulates). The hazardous wastes in this report are defined in accordance with the National Catalogue of Hazardous Wastes, while non-hazardous wastes refer to other wastes such as domestic wastes and construction wastes etc..

In 2017, the Group successfully passed the carbon audit for power plants conducted by the Development and Reform Commission of Henan Province, laying the foundation for allocation of greenhouse gases emission quotas in future.

The types of emissions and relevant emission data of the Group for 2017 are listed below:

Type of Emissions	Unit	Value
Total emissions volume of SO ₂	Ton	175.9
Intensity of SO ₂ emissions	Kg/RMB 1,000	3.4x10 ⁻²
Total emission volume of nitrogen oxides	Ton	1,249.8
Intensity of nitrogen oxide emissions	Kg/RMB 1,000	2.4x10 ⁻¹
Total emission volume of particulates	Ton	186.1
Intensity of particulate emissions	Kg/RMB 1,000	3.6x10 ⁻²
Total emission volume of greenhouse gases	tCO ₂ e	604,164.1
Intensity of greenhouse gases emissions	Kg Co ₂ e/RMB 1,000	117.6
Total discharge volume of sewage	Ton	—
Intensity of sewage discharge	Ton/RMB 1,000	—
Total production volume of hazardous wastes	Ton	107,924.4
Intensity of hazardous waste production	Kg/RMB 1,000	21.0
Hazardous waste handling rate	%	100.0
Total disposal volume of hazardous wastes	Ton	—
Total production volume of non-hazardous wastes	Ton	176.2
Intensity of non-hazardous waste production	Kg/RMB 1,000	3.4x10 ⁻²
Non-hazardous waste handling rate	%	100.0

Note: Intensity = Total emission/discharge/production volume ÷ total revenue (in RMB)

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Use of Resources

- **Relevant policies**

The Group treats low carbon development as an important driver for enhancing economic quality and efficiency under the new normal, and has adopted all-rounded energy-saving measures, including:

- o Improve resource management rules: Energy Management Rules, Energy Measurement Management Rules, Regulations on the Management of Air-conditioning Use in Summer and Domestic Water Management Rules;
- o Establish energy management bodies: form an energy leading team and an energy office under the Production Department, responsible for energy management of the Group, and set annual energy and water consumption assessment targets;
- o Promote clean production: improve technological process research and technical equipment, and extend the industrial chain to reduce energy consumption of technological processes and equipment. Technologies that the Group has taken part in their research and development, including automatic heating of coke ovens to save energy, have won the Scientific and Technological Achievement Award of Henan Province. The Group leads the industry in different areas such as water and electricity saving, use of waste heat, integrated unit cost control etc.;
- o Advocate green office: establish a paperless, automatic office system, reduce paper usage; and
- o Environmentally-friendly travel: exercise management and assessment of commuter shuttles and company vehicles, set highest gas mileage standards for such vehicles, call upon employees to take public transport to save energy and reduce greenhouse gases emissions.

- **Energy use efficiency initiatives and results**

In 2017, the Group invested RMB5.0 million for deep integration of informatization and industrialization, mainly for building smart power plant, smart control of production and smart management. Building smart power plant achieves optimal combustion of boilers, enhancing boiler output and power generation efficiency of turbines, and realizes the objectives of automatic control of operation parameters as well as greater efficiency with fewer workers; building smart control of production increases the number of high-resolution surveillance cameras, smart barrier gates and automatic alarm systems, and achieves real-time monitoring of production; building smart management improves the network infrastructure, enhances network data security and controllability, and achieves smart industrial production and management. In August 2017, the Company was awarded the National Pilot Enterprise on Implementation of Management System for the Integration of Informatization and Industrialization (兩化融合管理體系貫標試點企業) approved by the Ministry of Industry and Information Technology of the PRC.

Faced with an increasing shortage of supplies such as coal and electric power, the Group actively develops dry coke quenching project with a scale of 160.0 tons/hour, effectively reducing production costs and energy consumption. In contrast with the traditional wet coke quenching process, the dry coke quenching process can generate a large amount of steam for electric power generation, fully recycling energy stored in materials; improve and enhance coke quality under the same coal blending ratio conditions; use inert gases to quench red-hot coke in an enclosed system, while at same time avoiding generation of steam containing a large amount of phenol, cyanides, sulfides and dust, hence reducing environmental pollution.

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- Water efficiency initiatives and results**

China is a country with a relative shortage of water resources which are unevenly distributed temporally and spatially, and varying greatly within the same year and from year to year, necessitating extraction of groundwater from time to time to meet requirements for water usage.

Since its establishment and commencement of operations, the Group has, from a perspective of ecological and economic benefits, purchased and modified the Zenan Reservoir using self-raised funding to serve as a source of self-supplied industrial water, fully recycling 0.2 million tons of rainwater per year. The construction of the reservoir not only reduces groundwater extraction, but also replenishes some groundwater, easing the strains on the natural water cycle, and plays an important role in water and land conservation and ecological enhancement.



- Performance in use of resources**

The Group's use of resources data in 2017 is listed as follows:

Type of resources	Unit	Value
Coal (raw material of coke)	Ton	2,893,037.3
Diesel	Ton	601.0
Gasoline	Ton	70.3
Net purchase of electricity	1,000 kWh	144,100.0
Net purchase of thermal power	GJ	25,644.9
Total volume of integrated energy consumption	1,000 kWh	3,342,038.2
	Ton of standard coal	410,736.5
Intensity of integrated energy consumption	1000 kWh/RMB 1,000	0.7
	Kg of standard coal/RMB 1,000	79.9
Total volume of freshwater consumption	Million Ton	4.1
Intensity of freshwater consumption	Kg/RMB 1,000	800.2
Recycling rate of water for industrial use	%	98.9
Packaging	Ton	N/A

Note: Intensity = Total volume of energy or water consumption ÷ total revenue (in RMB)

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Protection of Environment and Natural Resources

• Relevant policies and management of environmental impacts of businesses

The Group adheres to the environmental protection concept of “developing green coal chemical enterprise”, and has fully considered and adopted the following measures to control the environmental impacts during project construction and operation, protecting the natural environment with a responsible attitude and behaviour:

- o Selectively situate the Group’s factory areas far away from residential areas and on lands which are difficult to utilize, to avoid noise and emissions impacts on residential areas during project construction and operation, and avoid occupying agricultural and forest land;
- o Strictly implement “Three Simultaneity” (i.e., construction projects shall be designed, constructed and put into use simultaneously with the relevant environmental protection facilities) rules and environmental assessment rules. All new, rebuilding or expansion projects have to prepare environmental impact assessment reports as required, and obtain the approval of relevant government departments;
- o Ensure that the environmental protection measures are in place during project construction and operation, reducing impact on natural environment;
- o Invest to construct and expand reservoirs, and collect surface water such as rainwater for production use, so as to reduce groundwater usage during project operation; and
- o Carry out activities like “Growing Together with the Company” tree adoption activity and voluntary tree planting etc., and greening at the Group’s factory areas and surrounding wastelands (since its establishment, the total investment of greening for the Group has reached approximately RMB12.0 million, the number of trees planted amounted to 0.1 million, covering dozens of species. The greening ratio for the factory areas reaches 42.0%, leading the industry in China), and carry out public welfare activities such as donations for environmental protection purposes (in 2017, a donation of RMB0.3 million was made to support construction of the Wanfoshan Forest Park in Jili District, Luoyang City).



Social Responsibilities

Employment

- **Relevant policies**

The Group views its employees as the most precious treasures during corporate development, and earnestly protects the legitimate rights and interests of employees through constantly establishing, improving and implementing relevant recruitment and remuneration rules and systems below:

- o Remuneration and dismissal: the Group establishes a scientific and reasonable remuneration system which offers competitive remuneration to employees. The Group also formulates and implements Regulations on Management of Resignation of Employees, which clearly defines the dismissal conditions;
- o Recruitment and promotion: the Group formulates and implements Regulations on Management of Recruitment of Employees, clearly defines recruitment conditions to form fair and standard employment conditions, the signing rate of employee labour contract in 2017 was 100.0%. The Group adopts various methods such as online recruitment, recruitment in universities and institutions, career fairs, recommendations by employees etc., to expand the recruitment channels and scope. The Group has also communicated with many professional online recruitment bodies, focusing on recruiting highly-educated, high-caliber and highly-skilled talents and staff for special posts. In 2017, the Group has actively connected with several universities such as Zhengzhou University, Henan University and Beijing University of Chemical Technology etc., organized five on-campus recruitment fairs and participated in three large-scale mutual selection recruitment fairs, and arranged on-site visits and symposiums for some graduates. In 2017, the Group recruited 157 staff, with 40 of them having bachelor degrees or above, 90 or them having received college education, and the rest of the staff possessing professional skills that the Group requires such as electrical engineering and mechanical repair etc., hence providing strong intellectual and technical support for the Group to carry out various works and important engineering projects. The Group also formulates open and transparent employee assessment and promotion mechanism, to ensure that each employee is fairly assessed and reasonably promoted during his/her tenure;
- o Working hours and rest periods: The Group formulates clear and concise rules on attendance and vacation, to fully protect the employees' rights to have rest and vacation;
- o Equal opportunity, diversity and anti-discrimination: the Group emphasizes on building a diversified team, providing equal opportunity for employees to demonstrate their capabilities, strictly preventing discrimination against gender and other aspects; and
- o Other benefits and welfare: the Group pays basic social insurance premium according to law for employees, such as pensions, medical treatments, unemployment, work-related injuries, and birth etc., and establishes employee welfare systems such as housing provident funds. Moreover, the Group also actively organises activities to shower employees with care, helping employees to improve work and life qualities through various methods (for instance, establishing employee mutual funds to provide relief fund for poor families, providing special physical examination and subsidies for women, distributing commodities to prevent heatstroke and induce cooling as well as benefits for Chinese New Year, providing welfare for employees' elderly parents and children, organizing various cultural and entertainment activities, etc.), so as to create a harmonious corporate environment.



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- **Relevant laws and regulations**

The Group stringently complies with relevant employment laws and regulations, including the Labour Law of the PRC (《中華人民共和國勞動法》), the Labour Contract Law of the PRC (《中華人民共和國勞動合同法》) and the Trade Union Law of the PRC (《中華人民共和國工會法》). By adhering to the principle of equality, conforming to employment standards, showing care towards employees, employees' sense of belongingness is enhanced, and harmonious relations between the Group and employees are promoted.

During the Reporting Period, the Group did not violate any relevant employment laws and regulations.

- **Number of employees**

As at the end of the Reporting Period, the Group has 1,361 employees. The staff turnover rate in 2017 was 0.2%.

The number of employees in 2017 classified according to gender, employment type, age and education level is as follows:

Type	Number
Gender	
Male	1,117
Female	244
Employment type	
Ordinary employees	1,297
Middle management	48
Senior management	16
Age	
Younger than 30	379
30-50 years	950
Above 50 years	32
Education level	
College education or below	1,164
Bachelor's degree	184
Master's degree or above	13

Occupational Health and Safety

- **Relevant policies**

The Group continually improves the safe production management system below to take charge of the overall safety management, enhance the safety management level and fulfil the responsibility of safe production management, achieve all-rounded safety management covering all employees and whole processes, and provide guidance and standardization for the Group's safe production:

- o Rules and standards: the Group formulates the Safety Standardization Management Manual of Henan Jinma Energy Company Limited, which includes 40 management rules such as Safe Production Responsibility Rules, Safe Operation Management Rules, Regulations on Safe Management of Special Equipment etc., clearly stipulating the regulations concerning relevant safety management and operational activities, and has become the programmatic document and code of conduct for guiding work safety;
- o Organizational mechanisms: the Group establishes a Safe Production Committee headed by the Chief Executive Officer and consisting of top management, forming a safe production management organizational body covering the Safe Production Committee, Safety Department/subsidiaries, workstations, work sections and teams, thus guaranteeing effective implementation of various management rules and standards of the Group;

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- o Assessment and supervision: the Group follows up, supervises and assesses production operations, focusing on integrated assessment of various areas such as the establishment status of safety management and post responsibilities, the implementation status of education and safety inspection rules, the control status of safety accidents, the management status of accidents and risks, and inspection and treatment status of potential hazards etc., to constantly enhance safety management performance. During the Reporting Period, the Group's safety staff has conducted over 1,100 times of monitoring over special operation sites, ensuring that maintenance works are conducted in a smooth and safe manner;
- o Inspection and rectification: the Group pays attention to safety inspection and rectification, through clearly defining the methods, frequency, contents, requirements, rectification and announcing results of safety inspections, supervision and management are enhanced, potential hazards are discovered and eliminated in a timely manner, and accidents are prevented and reduced. The Group persists on carrying out the "5S" management, i.e.: Sort (Seiri), Set in order (Seiton), Sweep (Seiso), Standardize (Seiketsu) and Sustain (Shitsuke), starting with mindsets, rules and measures, improving the on-site work environment entirely. The Group conducts "5S" inspection every day, reports on equipment and work environment that needs to be rectified, and follows up with the implementation of the rectifications. Through carrying out "5S" management, the Group's employees submitted 841 motions for improvement in 2017, of which 362 motions were rated as valuable and worthy of promoting, hence remarkably improving the work environment, decreasing labour intensity of employees and saving production costs;
- o Emergency drills: the Group formulates work plans for emergency drills, and actively carries out various emergency drills to enhance the response capability and skills of emergency teams and relevant departments in handling emergencies, thus laying the foundation for better emergency rescue works. The Group's fire contingent won the first place among corporate professional teams during Competition in Fire Control Occupational Skills of Jiyuan City in 2017; and
- o Occupational health: the Group regularly evaluates the risk factors of occupational diseases, provides employees with labour protection supplies, arranges occupational physical examinations for employees at posts involving toxic and harmful substances, and establishes and keeps an occupation health monitoring archive. Jinma Energy and Bohigh Chemical have successfully obtained certification of OHSAS18001 Occupational Health and Safety Management.



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- **Relevant laws and regulations**

The Group strictly abides by criteria set by relevant safety laws and regulations, including the Work Safety Law of the PRC (《中華人民共和國安全生產法》) and the Law of the PRC on the Prevention and Control of Occupational Diseases (《中華人民共和國職業病防治法》).

During the Reporting Period, the Group did not violate any relevant health and safety laws and regulations.

- **Safety education and training**

The Group continually carries out safety publicity and education for employees. Through implementing multi-level, multi-channel and targeted safety trainings and distributing safety publicity materials consisting of vivid images and detailed texts, employees' safety concepts, safety awareness and technical skills are effectively improved. In 2017, the Group arranged for over 230 times of safety training, the safety training rate of employees was 100.0%, and passing rate for trained external construction workers was 100.0%.

To increase safe production publicity and education and enhancing the safety awareness of all employees, on 11 May 2017, the Group organized for over 1,000 employees to participate in a safety commitment petition event. During the event, the participating employees voluntarily signed their names on the safety commitment banner, promising to consciously comply with the various safety management regulations and rules of the Group, and take practical actions to earnestly guarantee for safe production and no accidents.



- **Health and safety performance**

During the Reporting Period, the Group invested approximately RMB8.0 million in safe production, with no occurrence of accidents resulting in death or serious injury, and the total number of lost working hours was 230.0 man-days.

Development and Training

- **Relevant policies**

The Group spares no effort in creating the all-rounded and multi-field learning and development platform below, used to nurture talents at different levels with high integrated qualities, advanced professional skills and strong management capabilities, thus enriching the Group's talent team:

- o Enhance the management system for nurturing talents: enhance the nurturing mechanism for excellent talents, formulating Proposal of Selecting, Nurturing and Managing Excellent Talents, build up a nurture system for professional knowledge and skills in terms of management, law, internal control, technology, quality and environmental protection etc.;
- o Establish a scientific and effective assessment and evaluation mechanism: formulate a scientific and feasible talent assessment method to select excellent talents, and form a dynamic management mechanism under which employees may be promoted or demoted based on their capabilities;
- o Enhance talent exchange, expand development channel: increase the nurture and exchange intensity of talents, persist in improving rotation mechanism for talents so as to nurture their experiences through plans and different posts, promote excellent talents in exceptional cases; and

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- o Focus on nurturing young reserve cadre talents: focus on selecting young reserve cadre talents with high mindset quality, advanced professional skills, and strong work capabilities, conduct systematic and comprehensive nurturing, and including nurturing plans for such young cadres into the “Thirteenth Five-Year Plan” development strategy of the Group.

- **Training activities**

The Group issues “one newspaper and one magazine” every month, and calls upon for employees to read and learn, to enhance their own skills and cultural qualities, and learn about national affairs and the development status of the Group. In 2017, the Group released 13 issues of newspapers (including a special issue on the Group’s Listing), and 12 issues of magazines, providing employees with timely, comprehensive, high quality learning materials.

The Group has successively established long-term cooperation relationship with universities in Mainland such as Tsinghua University, Zhejiang University, Xiamen University, Zhengzhou University, Anhui University of Technology etc., nurturing talents with professional management skills. The Group has established joint nurturing system for on-the-job postgraduate students with Zhengzhou University, nurturing management talents of high-caliber and strong capabilities for the Group. Through talent nurturing, on the one hand the integrated quality of engineers and management of the Group is improved, alleviating shortage of high-level engineering and project management talents currently faced by the Group; on the other hand it also allows for combination of talent nurturing with resolving technical and management problems during the Group’s actual production, hence achieving targeted learning to serve practical needs, and benefitting the Group by improving its core competitiveness.

- **Training performance**

During the Reporting Period, the Group invested approximately RMB0.3 million in training, organized 12 rounds of training, and the number of trained personnel was 2,500.

The employees trained in 2017 are classified as follows according to gender and employment type:

Type	Number (%)
Gender	
Male	1,100 (88.0%)
Female	150 (12.0%)
Employment type	
Ordinary employees	1,210 (96.8%)
Middle management	30 (2.4%)
Senior management	10 (0.8%)

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The average training time is classified as follows according to gender and employment type for the employees trained in 2017:

Type	Average time (hours)
Gender	
Male	44,000
Female	6,000
Employment type	
Ordinary employees	48,400
Middle management	1,200
Senior management	400

Labour Standards

- **Relevant policies**

The Group strictly adheres to the principle of employee-run enterprise, and supports trade union to carry out work independently and democratically elect the trade union chairman, in accordance with the relevant stipulations under the Trade Union Law of the PRC (《中華人民共和國工會法》) and the Constitution of Trade Unions of China (《中國工會章程》). At the same time, the Group greatly supports publicizing of factory affairs, expand channels of democratic decision-making, democratic management and democratic supervising, to allow employees to learn about the Group's important decisions, important issues in production, operation and management, hence guaranteeing the employees' rights to participate in democratic management. The Group establishes a sound multi-level organization network, through methods such as employee representatives meeting, equal negotiation and collective contract system, and publicize through various media and in various forms etc., guarantees smooth communication across various multi-channels both laterally and horizontally:

- o Employee representatives meeting: strict implementation of the employee representatives meeting rules, important corporate decisions and other material events relevant to the personal interests of employees, for instance award and punishment of employees, proposals on allocation of income, welfare distribution etc., are subject to consideration and approval of the employee representatives meeting, the Group's leaders' reports and evaluations are also presented during annual employee representatives meeting;
- o Equal negotiation and collective contract system: items which involve employee's fundamental rights and interests are subject to equal negotiation, and confirmed in the form of signing collective contracts. The collective contracts negotiation group is responsible for supervising the implementation, and reports to the employee representatives meeting every year; and
- o Publicize through various media and in various forms: one method is to publicize during meetings, for instance quarterly operation symposiums for employee representatives, monthly meeting between factory affairs committee and chairmen of different trade union branches, weekly meeting on production control; second method is to publicize through publication columns, for instance quarterly factory affairs publication column, monthly internal magazines, and public information column of factory affairs which is updated from time to time. In addition, the Group also encourages each department to actively explore effective methods of publication based on their own pragmatic viewpoints, for instance making public to employees the completion status of targets, results of team bonuses distribution etc. through publication columns.

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Through publicizing factory affairs, corporate democratic decisions are effectively promoted, corporate scientific management level is enhanced, and has gained recognition both internally and externally. In September 2017, the Group was awarded the honorary title "Advanced Unit in National Open and Democratic Management in Factory Affairs" (全國廠務公開民主管理先進單位) by the All-China Federation of Trade Union.

- **Relevant laws and regulations**

The Group stringently complies with relevant laws and regulations, including the Labour Law of the PRC (《中華人民共和國勞動法》) and the Provisions on the Prohibition of Using Child Labour (《禁止使用童工規定》), and forbids behaviour of employing child labour and enforcing forced labour in all forms. The Group also actively conducts democratic communications, encourages employees to participate in the Group's decision-making, and collaborate to promote and witness the Group's development.

During the Reporting Period, the Group did not violate any relevant labour laws and regulations.

- **Prohibition of employing child labour and forced labour**

The Group strictly prohibits employing child labour and forced labour, and strictly reviews and verifies the information of job applicants during the employee recruitment process every year, to prevent employment of child labour at source. In addition, the Group increase management of the employees' working time by sticking to the statutory working time of 8 hours per day or 40 hours per week, and hence prevents forced labour from happening.

Supply Chain Management

- **Relevant policies**

The Group formulates supply chain management rules in accordance with a combination of relevant national laws and regulations and actual conditions of the Group's supply chain, enhances verification, management and evaluation of suppliers, urges suppliers to fulfil their environmental and social responsibilities to enhance their ability to perform, thus ensuring the stability and efficiency of the Group's supply chain.

The Group formulates and implements rules such as Supplier Evaluation Management Rules, Credit Evaluation of Qualified Suppliers Rules and Raw Material Coal Procurement Management Rules etc., and selects qualified suppliers through comparison of various areas such as supplier's corporate scale, transportation capability, product quality, after-sale service, and fulfilment of environmental and social responsibilities etc.. Based on the importance of the suppliers' products to the Group's production, the raw materials and auxiliary materials provided by the suppliers are classified and evaluated as follows:

- o Type A – Key materials: evaluation of qualified supplier is conducted every half a year;
- o Type B – Important materials: evaluation of qualified supplier is conducted once every year, so as to ensure that materials procured from different types of suppliers meet the Group's requirements, and guarantees the Group's stable production; and
- o Type C – General materials: evaluation of qualified supplier is conducted once every year, so as to ensure that materials procured from different types of suppliers meet the Group's requirements, and guarantees the Group's stable production.

- **Number of suppliers**

As coking coal is the Group's principal raw material, its quality and stable supply directly affect the product quality and quantity. Therefore, the Group adopts the strategy of mainly relying on various mining bureaus, and taking local large private enterprises and local market providers as the supplementary supply resources. The Group actively seeks out new suppliers to reduce reliance on a single region, continues to stabilize and optimize the coal supply structure, reduces rate of supplies loss associated with deliveries and shipment processes, controls procurement costs, and fulfils supplies of low-sulfur main coking coal, fat coal, lean coal, high-sulfur main coking coal etc. with adequate quality and quantity.

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The number of the Group's coal suppliers in 2017 is classified by region as follows:

Region	Number
Shanxi Province	25
Henan Province	7
Jiangsu Province	2
Shaanxi Province	2
Shandong Province	1

The number of the Group's suppliers of other materials in 2017 is classified by region as follows:

Region	Number
Henan Province (excluding Jiyuan City)	48
Jiyuan City of Henan Province	48
Liaoning Province	17
Jiangsu Province	15
Hebei Province	11
Beijing City	10
Shanghai City	7
Zhejiang Province	7
Shanxi Province	5
Jiangxi Province	5
Tianjin Province	5
Anhui Province	4
Shandong Province	4
Sichuan Province	2
Hubei Province	2
Shaanxi Province	2
Guangdong Province	1
Hunan Province	1

Product Responsibility

• Relevant policies

Based on the industry cluster development structure featuring upstream and downstream linked in one cycle of “coal-coke-coking by-products processing – energy”, the Group establishes new industrial development mode with circular economy at the core, and has become a “coke producer and coking by-products processor” focusing on four main segments of coking, chemical industry, energy, and logistics and trading, and integrates coal chemical industry, fine chemical industry and logistics and trading, achieving the shift from a base for commodity coke to a base for energy services. The Group proposes the concept of integrated development between coal chemical industry and petrochemical industry, and through acquiring companies that process downstream products, constructs and operates clean energy projects such as LNG, coke granule coal gas, electric power generation with coke oven coal gas, hydrogen production with coke oven coal gas etc., enriches the product structure and expands the business scope, forming an industrial economic circle within the coal chemical industry.

In addition, the Company was successfully listed on the Main Board of the Hong Kong Stock Exchange in 2017, gaining capital platform at a higher level and opportunities for improving internal management, which shall become the new driver for the Group’s development, facilitating the Group’s transformation into an “efficient clean energy and chemical industrial enterprise”.

The Group has gradually improved the product quality control system and relevant rules below, and constantly optimizes processes such as coal blending, coking, chemical production, processing of coal tar and benzene etc., so as to control production process in an all-rounded way, improving product quality and customer satisfaction:

- o Management rules: formulate Regulations on Quality Management, clearly defining details on quality management, fully satisfying relevant industrial standards such as Coke for Metallurgy (GB/T1996-2003) and Coal Tar (YB/T5075-2010);
- o Management system: The Group has commenced establishing quality control system since 2006, and Jinma Energy and Bohigh Chemical have successfully obtained certification of ISO9000 Series of Quality Standards, as well as Certificate of Quality Management System (質量管理體系證書) issued by Quality Assurance Centre of China Association for Quality (中質協質量保證中心); and

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- o Management measures:
 - ◆ Strictly monitor the quality of imported raw materials and auxiliary materials such as cleaned coal;
 - ◆ Implement product quality management rules and systems, improve quality control capabilities for coking and advanced processing processes;
 - ◆ Convene monthly meeting to analyse product quality, and resolve relevant issues;
 - ◆ Invite experts to participate in exchanges on product quality;
 - ◆ Provide good after-sale services and follow-up visits with customers, regularly surveying the level of customer satisfaction, so as to improve product quality in a timely manner (in 2017, the Group's average customer satisfaction amounted to 97.4%);
 - ◆ Formulate and implement employee learning and training plans to enhance their work skills and overall employee quality; and
 - ◆ To improve product quality and equipment management level, the Group has fully promoted "all employees participating in production and maintenance" management, forming a long-term mechanism of equipment management. On the one hand, the Group enhances equipment management and technical training for operators, and helps them cultivate the habit of equipment inspection to maintain and reduce natural deterioration of equipment, hence ensuring equipment support for producing high quality products; on the other hand, the Group establishes equipment operation and management system to facilitate discovery of weak links and existing problems during equipment management, hence enhancing the efficiency of equipment management, and ensuring technical support for producing high quality products.

- **Relevant laws and regulations**

The Group stringently complies with relevant laws and regulations, including the Product Quality Law of the PRC (《中華人民共和國產品質量法》), optimises product layout, and keep a firm hold on product quality, so as to provide customers with qualified and satisfactory products.

During the Reporting Period, the Group was not involved in any material events in relation to violation of relevant products and services laws and regulations.

- **Product quality performance**

The Group's product quality performance data in 2017 is listed as follows:

Product type	Unit	Production capacity	Passing rate
Coke products	Ton	1,999,532.9	100.0%
Coal gas products	Cubic meter	392,551,025.8	100.0%
Benzene based chemicals	Ton	132,451.1	100.0%
Coal tar based chemicals	Ton	171,337.9	100.0%

Anti-corruption

- **Relevant policies**

The Group formulates several management rules such as Regulations on Management of Anti-corruption and Reporting Mechanism, Regulations on Protecting and Rewarding Informers and Regulations on Project Audit Management etc., and sets up Disciplinary and Investigation Committee as the routine institution of the Group's anti-corruption works, providing strong rules and organizational support for the Group's anti-corruption works.

The Group strictly controls sensitive links such as bid invitation and procurement etc., and constantly enhances the processes for open bid invitations, internal and external audits and examinations, staff supervision and management, and adds anti-corruption relevant clauses to all contracts to effectively avoid corruption from happening. In addition, the Group improves employees' anti-corruption awareness through continually carrying out activities such as having leaders and cadres sign the letter of commitment of constructing a clean and honest administration, and anti-corruption publicity and education etc..

In 2017, the Group carried out 2 rounds of training on anti-corruption education, with a total number of 150 attendees. In addition, on 1 July 2017, the Group held "Jinma Energy Celebration of the 96th Anniversary of the Founding of the Communist Party of China", attended by more than 100 people including all of the Group's leaders, person-in-charge of each department and employee representatives. The meeting highlighted the importance of anti-corruption, and called upon all employees to keep their integrity and be clean, honest and self-disciplined. After the meeting, there was organised viewing of educational video publicizing anti-corruption, laying a good mindset foundation for achieving the Group's various work objectives.

- **Relevant laws and regulations**

The Group stringently complies with relevant laws and regulations, including the Criminal Law of the PRC (《中華人民共和國刑法》), the Company Law of the PRC (《中華人民共和國公司法》), the Anti-unfair Competition Law of the PRC (《中華人民共和國反不正當競爭法》) and the Interim Provisions on Banning Commercial Bribery (《關於禁止商業賄賂行為的暫定規定》) issued by the State Administration for Industry & Commerce of the PRC.

During the Reporting Period, the Group did incur any litigations or corresponding penalties arising from corruption or bribery.

Community Investment

- **Relevant policies**

The Group actively fulfils its social responsibilities, provides stakeholders with returns, cares for society and general public, pays attention to disadvantaged communities, pays attention to social education, actively contributes to building of socialist harmonious society, demonstrates sense of responsibility and style of an excellent enterprise. The Group has donated a total of approximately RMB12.4 million since its establishment. During the Reporting Period, the Group's donation was approximately RMB2.7 million.

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• Areas of contribution

- o Targeted poverty alleviation: the Group greatly supports developing industries to alleviate poverty, assists the relevant regions to form sustainable economic sources and shares the results of economic development. On 4 August 2017, upon the three-way negotiation between the poverty alleviation unit of Standing Committee of Municipal People's Congress office, People's Government of Kejing Town and the Group, integrating actual local conditions, there is a planned project to build a 228 kW roof-distributed photovoltaic plant in Guquan Village, putting a thorough end to the poverty situation through industrial support. Through this project, villagers can utilize electricity and connect surplus electricity to the grid to obtain sustainable and stable income. The Group has already contributed approximately RMB1.0 million as start-up capital, which will be transferred to the People's Government of Kejing Town via Charity Federation of Jiyuan City based on the construction progress. After operation of this project, the property right shall be collectively owned by villagers of Guquan Village, and the Guquan Village Committee shall be responsible for its operation and management, with follow-up and supervision by the Standing Committee of Municipal People's Congress office and the town government, to ensure faithful implementation of industrial poverty alleviation, achieving stable increase of the village's collective income, fundamentally improving the public infrastructure construction, and ultimately achieving the objective of putting a thorough end to the poverty situation.
- o Education support: the Group attaches great importance to local education, and has actively donated RMB0.9 million in succession to schools such as No. 1 Middle School of Jiyuan, No. 1 Middle School of Wangwu, No. 2 Middle School of Wangwu and Potou Middle School etc., assists to improve the education and teaching facilities and working conditions, enhances the team of teaching staff, as well as assists poor students to complete their studies. The Group also donates RMB0.2 million to the "Bonus Fund for Excellent Teachers of No. 1 Middle School of Jiyuan" each year, contributing to the sustainable development of education in Jiyuan City. 18 August 2017 was the "Charity Education Day" of Jinma Energy, and education fund of approximately RMB1.1 million was distributed to a total of 200 poor university students to assist them complete their studies. Since 2012, the Group has collaborated with the Charity Federation of Jiyuan City, donating RMB10.0 million to implement "Jinma Energy's Ten-year Charity Education Plan", which plans to, within the coming 10 years, support 500 poor students who can go to universities, each receiving RMB5,000.0 of education fund per year. As at the end of the Reporting Period, 300 university students have already received support, totalling approximately RMB4.6 million.
- o Harmony between village and enterprise: as a local large-scale private enterprise in Jiyuan City, the Group has for many years continuously provided feedback of benefits to surrounding communities and sharing the results of corporate development, through various forms such as carrying out respect the elderly activities, assisting over 300 villagers of surrounding areas to find jobs etc., and hence achieving harmonious relations between village and enterprise. As the Chinese New Year was approaching in 2017, the Group's leaders went to four surrounding villages including Wanghu, Nandu, Zenan and Zebei to visit elderly over 70 years old and the poor families, and distributed consolation gifts and funds totalling approximately RMB36,000.0, 40 barrels of edible oil and 40 bags of rice. On 27 October 2017, as the Chung Yeung Festival approached, the Group's leaders visited elderly over 70 years old in surrounding villages to pay respect, conveyed holiday blessings and warm greetings to the elderly, and handed over RMB31,600.0 of consolation fund to the elderly.

