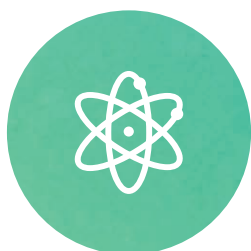




# 中煤能源社会责任报告

## CHINA COAL ENERGY CSR Report

### 2016



# Description for the Preparation of the Report

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## Summary of the report

China Coal Energy CSR Report 2016 is the eighth yearly CSR report published consecutively by China Coal Energy Company Limited. It focuses on the corporate mission which is to “supply quality energy and lead industrial development for a prosperous life”, systematically reviews the development opportunities and challenges faced by the Company during 2016 and fully discloses the Company’s philosophy of sustainable development, practices and results in performing its responsibilities on economy, safety, environment, innovation, employees and community.

## Range of period

From 1 January 2016 to 31 December 2016. To increase the comparability of the report, certain contents may date back to previous years when appropriate.

## Scope of reporting

This report covers China Coal Energy Company Limited and its subsidiaries (branches).

## Basis of preparation

“Sustainable Development Reporting Guidelines” (GRI G4) of Global Reporting Initiative;

“Guidelines on Preparation of Corporate Social Responsibility Report for Corporations in China” (CASSCSR3.0) of the Chinese Academy of Social Sciences;

“Guidelines on Industry Information Disclosure of Listed Companies” of the Shanghai Stock Exchange;

“Environmental, Social and Governance Reporting Guide” of the Stock Exchange of Hong Kong Limited.

## Sources of information

The financial data in the report were extracted from the audited annual report of China Coal Energy Company Limited (in accordance with the PRC Accounting Standards), whilst other data came from internal data of the Company and other relevant statistics. China Coal Energy guarantees that the information set out in this report does not contain any false representations, misleading statements or material omissions.

## Description of references

For easy reference and reading, China Coal Energy Company Limited is also referred to as “China Coal Energy”, “the Company” and “We” in this report.

## Frequency of publication

This report is a yearly report.

## Inspection of the report

This report is prepared in Chinese and English. The electronic version of this report may be downloaded on the website of China Coal Energy Company Limited, at <http://www.chinacoalenergy.com>.

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## Chairman's Statement

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The year of 2016 was a remarkable year for Chinese coal enterprises. With the effects of the policies such as thoroughly promoting the supply-side structural reform and expediting to dissolve overcapacity of coal, the domestic coal market initially declined and gradually picked up, while coal price stabilised and rebounded. Confronted with these extreme fluctuations in the coal market, China Coal Energy overcame various difficulties, improved its quality and efficiency by taking a series of effective measures, and ensured the safety and stability as well as the normal and orderly production and operation of the Company. Meanwhile, China Coal Energy actively fulfilled the social responsibility, and made new efforts and obtained new achievements in aspects of value creation, safe production, environmental protection, science and technology innovation, staff care, community building, and so on.

Fully improving quality and efficiency and realising the turnaround from loss to profit. By closely following market changes, the Company scientifically arranged production with focusing on quality enhancement and efficiency improvement, and promoted reform and adjustment, thus the production and operation proceeded steadily, and the Company successfully realised the turnaround from loss to profit. The Company achieved operating revenue of RMB60.632 billion, representing a year-on-year increase of 2.3%. Total profit amounted to RMB3.371 billion, representing a year-on-year increase of RMB5.896 billion. The net profit attributable to the equity holders of the Company was RMB2.027 billion, representing a year-on-year increase of RMB4.547 billion. Basic earnings per share amounted to RMB0.15, representing a year-on-year increase of RMB0.34.

Paying great attention to safety supervision and improving the safety assurance ability. Always adhering to the safety concept of "Safety is of Vital Importance, Life is the Most Valuable", China Coal Energy vigorously carries out its safety development strategy, implements responsibilities, consolidates foundations, highlights focal points and exercises strict supervision, leading to the continuously stable and safe production situation. China Coal Energy reached a fatality rate of raw coal production per million tonnes of 0.017 in 2016. Safety quality standardisation construction was continuously promoted, which facilitated ten enterprises to achieve security-type company standards and super standardised company standards. Besides, 12 mines were awarded the title "2015 National First Level Safety and Quality Standardised Coal Mine".

Building a "Green China Coal Energy" and improving green development quality. China Coal Energy has been persisting in building a "Green China Coal Energy", improving the standard system, increasing the resources recovery rate, reducing the energy consumption, actively carrying out pilot and energy efficiency benchmark work of the energy management system, promoting the pollution control and emission reduction, and enabling the energy consumption per RMB10,000 turnover to fall continuously, which has paved the way for China Coal Energy to achieve assessment indicators of energy conservation and emission reduction. The Company has constantly promoted ecological management, soil and water conservation to protect and improve the regional ecological environment. China Coal Ordos Energy Chemical Company, which has achieved "zero discharge of waste water in coal chemical industry", won the award for Green Environmental Protection of 2016 China CSR.

Strengthening innovation drive and leading the industry development of science and technology. China Coal Energy vigorously promoted technological innovation, improved technical management system and increased scientific research, which helped the Company to make many achievements in aspects of the key technology development and innovation capability construction, and to make new contribution to safety guarantee, cost reduction and benefit improvement and core competitiveness enhancement. China Coal Energy further enhanced

its capability of innovation, as demonstrated by the Company's 14 awards for scientific and technological advancement at industry and province levels and 190 new licensing patents, 45 of which were invention patents in 2016.

Adhering to the people-oriented principle and safeguarding employee's legitimate rights and interests. Sticking to the philosophy of "harmony", China Coal Energy has built harmonious labour relations and strengthened occupational health protection to fully safeguard the employee's legitimate rights and interests. Faced with a serious situation where the overall coal industry in China incurred poor efficiency and some coal enterprises delayed or defaulted on wage payment, the Company enhanced the overall management of fund and gave priority to wage payment by building the monthly report system for unpaid wages as well as performing specific control policies at corporate level. As a result, the Company paid wages to all its employees without delay throughout the year of 2016.

Benefiting the society and people's livelihood and promoting the economic and social development. China Coal Energy insists on win-win harmony and supports the development of the local social economy. In 2016, the total amount of the Company's social contribution reached RMB22.627 billion, including taxes, labour costs, net profit and interest expenses, with the social contribution value per share being RMB1.71, of which overall taxes and fees amounted to RMB6.274 billion and accounted for 10.24% of its operating revenue. The Company actively responded to and implemented national strategies of targeted poverty alleviation and gave full play to its own advantages to help achieve the objectives of targeted poverty alleviation. In 2016, the donation made and poverty alleviation funds utilised by the Company amounted to RMB1,379,000. The Company also encouraged its employees to carry out various forms of volunteer service activities, thus helping spread positive energy in the society.

2017 is an important year for implementation of the "Thirteenth Five-Year Plan" as well as a significant year for intensification of the supply-side structural reform. Focusing on the annual targets of production and operation, we will stick to the general requirement of "quality improvement amid stability with reform and innovation", continue to promote the structural adjustment and improve the quality of development. The Company will focus on "cutting overcapacity, destocking, deleveraging, reducing costs, and remedying the weakness", vigorously improve quality and efficiency to increase its earning level, deepen the reform, encourage innovations and entrepreneurship and inspire corporate vitality, as well as uphold the safe production and stable development of the enterprise. At the same time, China Coal Energy will inject the "gene" of social responsibility management throughout the entire process of corporate management, stimulate the potential of stakeholders in a concerted effort to create social value, effectively manage the impact of its operation on the society and the environment, and create the highest possible overall economic, social and environmental value during the course of corporate development.

We are committed to pursuing the performance of social responsibilities and joint value creation. We would like to further strengthen open communication and sincere cooperation with stakeholders, and work together for a better future!

Li Yanjiang  
22 March 2017

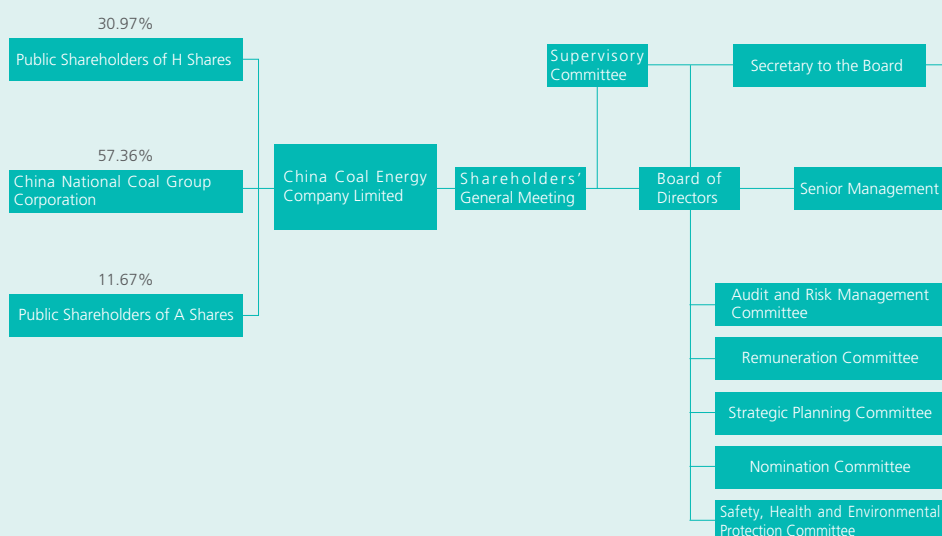
# Company Overview

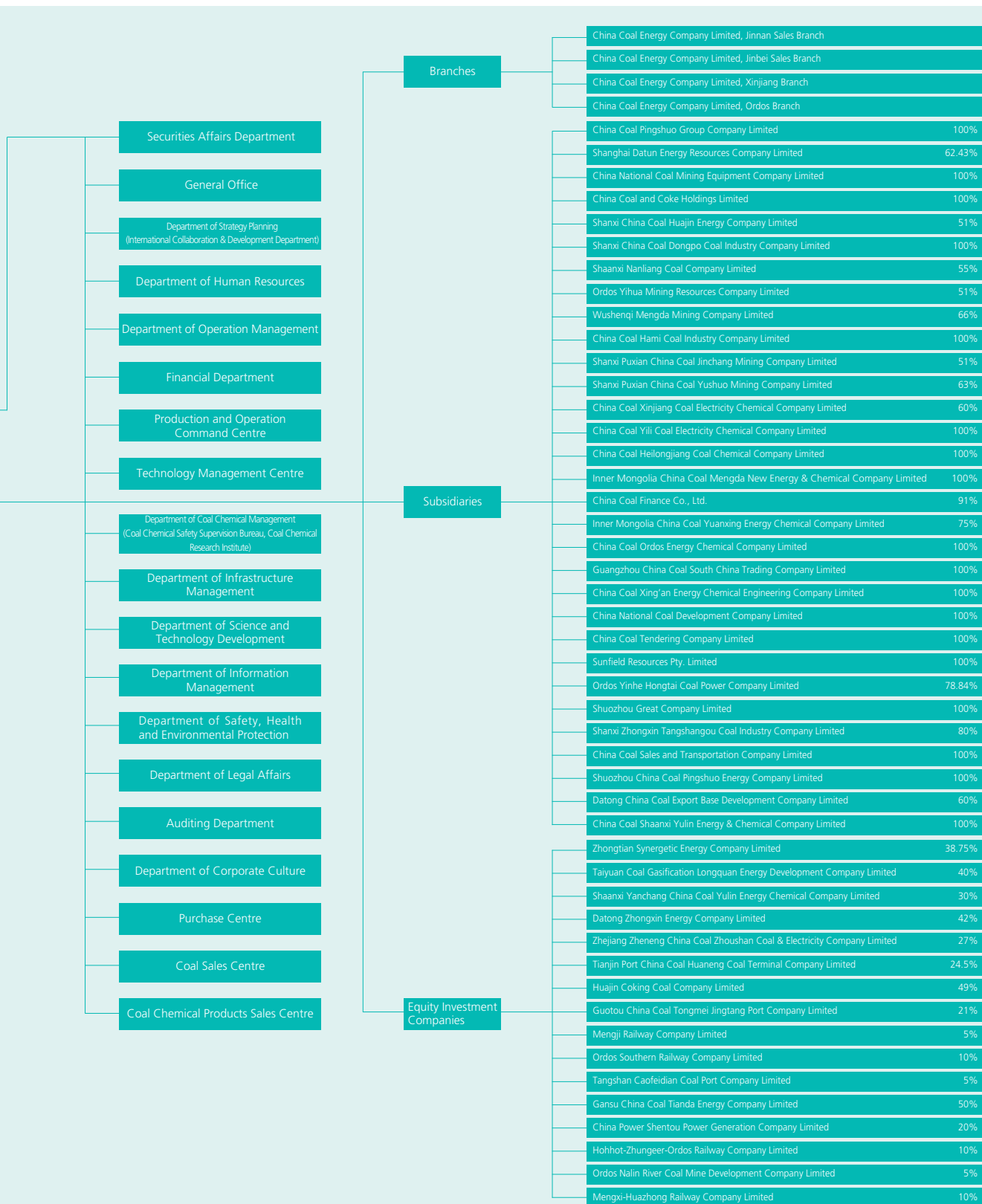
China Coal Energy Company Limited was solely established as a joint stock company by China National Coal Group Corporation on 22 August 2006. The Company was successfully listed in Hong Kong in December 2006, while its A shares were issued in February 2008. The headquarters of the Company is located in Beijing, the PRC.

The Company is a large energy company with four principal businesses including coal production and trading, coal chemical engineering, power generation and coal mining equipment manufacturing, the second largest coal producer and supplier, and the largest manufacturer of mining machinery in the PRC.

The Company boasts abundant coal resources and diversified coal products as well as modern technologies and techniques in mining, coal washing and blending. Mining areas in Pingshuo, Shanxi Province, and Ordos of Inner Mongolia Autonomous Region, primarily developed by the Company, are the most important thermal coal production bases in the PRC. The coking coal in the mining area in Xiangning, Shanxi Province, is of high quality with low sulphur and extra low phosphorus content. The major coal production bases of the Company have well established coal transportation networks which are connected to coal ports, creating favourable conditions for the Company to bolster competitive edges and achieve sustainable development.

## Company Organisation Chart of CHINA COAL ENERGY COMPANY LIMITED





# Corporate Culture



China Coal Energy's logo consists of two letters of "C", which denote "CHINA" and "COAL" respectively. The two "Cs" form the Chinese character "中", in which Chinese and English letters are joined together to create a vivid image. The combination of the trapezoidal C and the long circle C looks like a circle of light sent out from an old miner's lamp. The outer contour of the light forms a Chinese lantern which signifies auspiciousness, stability and dignity with strong oriental charm. The base colour of the logo is purple blue, i.e. the colour when coal or gas or other energy is combusted in the fullest and the most environmental-friendly way. The logo integrates English, Chinese and a variety of patterns, reflecting the Company's style as a diversified and international conglomerate.

## China Coal Energy's Vision

**To Build Itself into a Clean Energy Supplier with Relatively Strong International Competitiveness**

## China Coal Energy's Mission

**To Supply Quality Energy and Lead Industrial Development for a Prosperous Life**

To unleash its industrial advantages, increase productivity, promote clean conversion and utilisation of coal, supply high-quality, abundant energy, and to boost economic and social development.

To adhere to integrated innovation, enhance the core competitiveness of the Company, be a leading player in the industrial development and to contribute to the building of a new system for the coal industry.

To enhance corporate strength, build harmonious mining areas, protect the ecological environment for the benefit of staff and the public, serve for the building of a well-off society and to promote human well-being.

## China Coal Energy's Spirit

**Dedication, Integrity, Innovation and Forerunner**

**Dedication** – being dedicated to duties, being courageous to undertake responsibilities, being passionate for work and being loyal to the Company.

**Integrity** – being realistic and pragmatic, having a down-to-earth working style, being industrious and thrifty, being honest, doing practical work and seeking practical results.

**Innovation** – freeing the mind, being courageous to explore, being committed to scientific thinking, enhancing innovation capability and building an innovative enterprise.

**Forerunner** – being pioneering and aggressive, being courageous to scale new heights, benchmarking against excellent enterprises, excelling ourselves, establishing the China Coal Energy brand and striving to be a role model in the industry.

## China Coal Energy's Core Values

**Scientific Development, Safety and Efficiency as well as Harmony and Win-Win Situation**

**Scientific development:** be people-oriented and to make overall planning and consideration to achieve comprehensive, balanced and sustainable development of the Company.

**Safety and efficiency:** be committed to safe development and to improving efficiency and effectiveness.

**Harmony and win-win situation:** be honest and trustworthy, and to achieve mutual benefit and win-win situation as well as harmonious coexistence and joint development between employees and the Company, between the Company and other enterprises and between the Company and the society.



## Strategies of the Company

Under the new normal of national economic and energy development, the Company will unswervingly adhere to its development philosophy, precisely capture opportunities, and actively respond to challenges so as to expand industry advantages and offset its shortcomings in development. Leveraging on the development layout of the “Thirteenth Five-Year plan”, the Company has defined its strategic vision as well as the development strategies and goals for the next 5 years:

**Strategic vision:** The Company will aim to build up its position as a clean energy supplier with relatively strong international competitiveness. The Company will also strive to become a leader in green and safe production, a fugleman of clean and highly-efficient utilisation and a provider of quality services, and to maximise the interests of enterprise and the employees, the shareholders and the society.

**Development ideas for the next 5 years:** According to requirements for provider of clean energy of being market-oriented and focusing on optimising efficiency, the Company will strive to establish a new circular economic business line for coal, power and chemical, and to build a new business line for energy integrated services. The Company will also strive to build a new regional layout of “full function, customised differentiation and complementary advantages” to deal with the critical relationships between short-term and long-term, reform and stability, as well as management control and vitality. The Company will be committed to making a good job on 5 key tasks which include safety and stability, quality and efficiency improvement, transformation and upgrade, reform and adjustment, as well as consolidation of the foundation. The Company will consciously implement the 5 key development concepts of making innovation, coordination, green, open and sharing.

**Coal industry:** The Company will focus on promoting clean and efficient development of coal. The Company will vigorously promote the construction of integrated projects of coal, electricity and chemical, enhance the coal production efficiency, increase the on-site transforming ratio of coal, and highlight the advantage of economy of scale and intensive development. By leveraging on elements including the richness of coal resources, market location and environmental capacity, the Company will focus on developing the large-scale coal bases in Inner Mongolia-Shaanxi and Shanxi, etc. with differentiation so as to fully realise the transformation from speed and scale-oriented mode to quality and efficiency-based mode.

**Coal chemical industry:** The Company will adopt the most advanced coal gasification technology and environmental energy saving standard to construct the large-scale coal chemical bases in Inner Mongolia-Shaanxi and Shanxi, etc. The Company will steadily promote the upgrading model projects of coal-based new materials, chemical fertiliser and new energy, strictly control the energy consumption, water consumption and emission of pollutants, so as to cluster the project, expand the production scale and refine the products. The Company will increase the standard of multi-production and added-value of coal-based products so as to realise the transformation from traditional coal chemical to modern refined coal chemical.



**Power generation industry:** Focusing on the construction of the nine 10-million-kilowatt large-scale coal power generation bases in Ordos, north Shanxi, north Shaanxi and Zhundong, etc., and fully integrating with the resources, environmental capacity and power transmission channels in the coal mining areas, the Company will adopt the most advanced power-saving, water-saving and environmental-friendly electricity generation techniques and construct the large-scale mine mouth coal-fired power plants and low calorific value coal power plants in Shanxi, Xinjiang and Jiangsu, etc., so as to enhance the value chain of the coal-electricity industry and to achieve integrated and synergetic development of coal and electricity.

**Coal equipment manufacturing industry:** By grasping the strategic opportunity of international resource cooperation and reacting to the “Made-in-China 2025 Strategic Plan”, the Company will further deepen the reform on the management system and adhere to its technological innovation and technical cooperation. Besides, the Company will also focus on boosting in-depth integration of equipment manufacturing with new information technology including IOT, big data and cloud computing, etc. The Company will promote big scale, high-end and smart equipment manufacturing, strengthen its technology reserve and innovation capacity and in turn procure the localisation of leading technology and equipment and the internalisation of significant technology and equipment in respect of coal mines. The Company will seek to speed up the equipment manufacturing in a move to make transformation from a production-oriented mode into production-and-service-oriented mode and to turn itself into an equipment manufacturing service provider with relatively strong international competitiveness.

**The “Thirteenth Five-Year Plan” development goal:** To fundamentally complete the structure adjustment through a series of enhancement, adjustment, transformation and upgrade, to make the regional layout more harmonised, the industrial synergetic effects more remarkable, the results arising from service transformation outstanding, the corporate governance more scientific and reasonable, the Company will further improve the comprehensive economic power, the sustainable development capability and the innovation initiatives of the employees so as to lay a solid foundation for the Company to become a clean energy supplier with relatively strong international competitiveness.

# Corporate Governance

## Regulated Operation

**Governance structure.** The Company has set up a corporate governance structure comprising the General Meeting, the Board, the Supervisory Committee and the management in accordance with requirements of the Company Law, Securities Law and other relevant laws and regulations, forming a mechanism with well-defined rights and responsibilities, regulated operation, inter-coordination and check-and-balance among the organs of power, decision-making bodies, supervisory bodies and the management. The Company has formulated a series of relevant rules and systems, such as the Articles of Association, Rules of Procedures for General Meetings and Rules of Procedures for Board Meetings. In 2016, the Company amended the Articles of Association and other rules and systems in accordance with the latest laws and regulations, listing rules and regulatory requirements of the place where the Company is listed, which further improved the corporate governance system. There is no difference between the Company's corporate governance standards and the requirements prescribed by China Securities Regulatory Commission.

**Standardised operation.** Independent directors of the Board of China Coal Energy account for more than one third of the membership of the Board, which is more exacting than the requirements of regulatory authorities. A modern corporate structure with well-defined collaborative supervision and coordinated operation is in place among the Board, General Meeting, Supervisory Committee and the management. The Company's major business matters are submitted to the General Meeting for voting after being discussed and voted by the Board. This institutional arrangement enables the Board to play a core role. The Board has overall

responsibility for the remuneration and performance evaluation of the senior management. The Supervisory Committee plays an active role as supervisors in the proceedings of General Meeting and in major issues. Under the Board, five specialised committees are established, namely audit and risk management committee, remuneration committee, strategic planning committee, safety, health and environmental protection committee and nomination committee. Full play is given to the role of the specialised committees so that major decisions will be discussed first by the specialised committees before they are submitted to the Board for consideration. A work mechanism has been established for independent directors to conduct fieldwork research. The Board co-ordinates the arrangement of a yearly plan for Board meetings, adopts innovative forms of meeting and ensures that independent directors can attend meetings on time and fully express their views. In 2016, China Coal Energy organised and convened one General Meeting, five Board meetings and five Supervisory Committee meetings. The Board of China Coal Energy steps up scientific decision-making and supervision of the Company's major matters such as development strategies, investment plans, financial management and production and operations, as well as guides and promotes corporate reform and development, thus having effectively enhanced the Company's core competitiveness and sustainability.

**Rule of law.** Adhering to the principle of "managing according to law and operating in compliance with regulations", the Company comprehensively established its corporate image as a legal person under the rule of law, a business entity of integrity and law compliance and a market entity with fair competition, strictly observed national laws and regulations and government regulatory requirements and maintained the credibility of



Board Meeting of China Coal Energy



Procurement Management Business Work Meeting

the Company. A Plan for Managing According to the Law and Operating in Compliance with Regulations was formulated to set up specialised measures from four aspects, including establishing the standards for legal risk management, enhancing the Company's compliance management, promoting legal management system thoroughly and improving the Company's capacity of managing according to law. The Company strengthened the establishment of general legal counsel system, resulting in the establishment of general legal counsel system in all the major subsidiaries of the Company, thus ensuring the corporate operations in compliance with the applicable regulations.

## Internal Control

**Internal control system.** Based on system construction, through system improvement and workflow optimisation, the Company managed to continuously improve the standardisation, intensification, specialisation, elaboration and informatisation of management and enhance the efficiency of the operational management and capacity of risk prevention. Through continuously exploring the management-control mode of each business sector and regional company, and by implementing differentiation management over different business sectors, the Company effectively improved the internal control effect of the various business sectors.

**Budget management.** The Company conducted in-depth research on the macroeconomic and industrial situations, established a comprehensive budget management model of "budget preparation – target management – process control – performance appraisal", and strengthened budget implementation under the direction of budget proposal through budget refinement, vigorous control and strict assessment. The Company strengthened performance appraisal for all employees, further extended Key Performance Indicator (KPI) management, ensured that all key duties were matched with relevant operating performance, highlighted personalised appraisal indexes and enlarged the weight ratio of key duties in the performance appraisal, so as to guarantee the realisation of current operating performance objectives, the fulfilment of key duties as well as the

incremental increase in potential development.

**Risk management.** Focusing on "target, risk and control", the Company adopted the approach of "centralised planning and graded implementation", organised regular risk assessments and self-assessments of internal control and sorted out the weaknesses and potential risks during the process of operational management of the Company seriously. In 2016, the Company revised the Manual of Powers Allocation, combed the workflows and strengthened the system establishment and the design of workflows of the major policy decisions, significant appointments and removal of person, arrangement of key projects and operation of large sum of money. The Company eliminated possible hidden danger and prevented potential risks effectively through organising risk assessment of significant matters.

**Supply chain management.** The Company performed its duty for win-win development with partners seriously and attached importance to the management of supply chain responsibility to improve the responsibility awareness and capability of supplier and pursue mutually beneficial cooperation, thus realising the win-win development with the supply chain partners. The Company continuously improved the supplier management system through promoting the establishment of its unified administration and graded responsibility system for the full life circle of suppliers, such as admission, authentication, and performance appraisal and exit. In 2016, 113 out of the 128 suppliers bearing contractual relationship with the Company's headquarters were selected to go through the performance appraisal, representing an assessment rate of 88%. Insisting on the responsible procurement policy, the Company continuously improved the institutional system of tender procurement, called for fair competition, conducted "Sunshine Procurement", resisted corruption and commercial bribery, encouraged and supported the procurement of responsible products and services, and facilitated the awareness and capacity of suppliers in fulfilling responsibilities. In 2016, the level of centralised purchasing management at the Company's headquarters was above 92%. The quality concerned complaint rate of centralised procurement was zero. No disciplinary offence was recorded in relation to centralised procurement



at the Company' headquarters. No supplier complaint was recorded during the whole year of 2016.

**Anti-corruption.** As a state-controlled listed company, China Coal Energy has always integrated Party building and anti-corruption work into the general course of enterprise reform and development, covering every aspect of its production and operation, to provide a strong and effective safeguard for the healthy and sustainable development of enterprises. The Company fully implemented the political responsibility of practising strict Party self-governance, took the lead and made the subordinates to follow suit and passed on the political pressure level by level, to promote strict Party self-governance in a comprehensive and in-depth manner, and to extend it to the grassroots level. The Company implemented seriously the accountability system for the promotion of integrity as the Party conduct, and signed responsibility undertakings at each level. The Company attached great priority to the discipline and rules, and dealt with disciplinary offences early before it grew up. The Company took the initiative in practising the "Four Ways of Enforcing Party Discipline", looked into every case and eliminated every corrupt official, and investigated in a number of cases of breaching the rules and discipline. The Company strictly implemented the "Eight Rules" spirit and resolutely rectified the "four types of detrimental practice". In particular, the Company established a long-term mechanism for the supervision and inspection of the "four types of detrimental practice" related problems during major festivals, and carried out regular review over the rectification of the "four types of detrimental practice" related problems in a down-to-earth way, to revise and improve the specific measures to improve its working style and associate itself closely with the masses, and to ensure real change in the working style. The Company strictly promoted the full coverage of inspection, and organised two rounds of internal inspections. Further, the Company emphasised on the use of inspection results, and focused on problem rectification, to ensure that "every case is reviewed, and everything ends with a conclusion", which highlighted the supervision function of inspections. The Company strengthened its anti-

corruption warning education, held a number of specialised lectures on anti-corruption and organised staff to visit the anti-corruption education bases, so as to cultivate the culture of anti-corruption, establish the philosophy of anti-corruption and create a clean and sound corporate environment.

**Supervision through auditing.** The auditing departments of the Company at all levels further strengthened their supervision on internal auditing. Aiming to prevent risks and solve problems, their supervision focused on key management processes such as material purchases, product sales, project bidding and the payment of large sums of money. The problems found out during auditing were strictly rectified; the management was urged to exercise rights in a standardised manner; construction projects were invested in accordance with laws and regulations and the internal control mechanism of the Company was improved. The Company promoted the enhancement of its operation and management levels, with a view to preventing operational risks.

**Transparent operation.** We consider openness and transparency as significant aspects when it refers to the social responsibility of companies. It is an important measure to increase public confidence and the key to prevent corruption. Aiming at hot issues that staff and society paid close attention to, such as recruitment, procurement, bid invitation and cadres appointment, the Company insisted on plan openness, process openness and result openness, accepted social inspection and prevented black case work. The Company insisted on the open system of factory affairs and made regularly disclosure on significant matters, cadres' position-related expenses and financial affairs through the meeting of employee representatives, bulletin board and suggestion box, encouraging staff to offer advice and suggestions and participate in corporate governance. The Company disclosed the operating and developing situation and actively responded to the concerns of the society through media such as company website, CSR report and annual report. The Company set up press spokesman system to answer the questions raised by media and investors, thus building a good communication mechanism.



Visiting Anti-corruption Education Exhibition Organised by Xinjiang Branch

# Management of Social Responsibilities

## Work System of Social Responsibilities

China Coal Energy is committed to in-depth implementation of the harmonious development strategy, and promoting management of social responsibilities continuously, with a focus on incorporating the concepts and requirements of social responsibilities into the current management system. Actively exploring on the social responsibilities management model suitable for itself, the Company seeks to continuously improve the capability to fulfil responsibilities in pursuit of the sustainable development goal of “realisation of an optimal integrated value of economy, society and environment”.

**Organisational system.** The Company has established a relatively sound social responsibility work organisation. A leading group for social responsibility work led by Chairman with functional and business unit chiefs as members has been set up and is responsible for leadership and decision-making of social responsibility work, under which an office of social responsibility work has been established for handling specific matters of social responsibilities. Respective working teams have also been set up in each of the secondary enterprises, which are responsible for implementing and

accomplishing the social responsibility work.

**Indicator system.** A social responsibility indicator system comprising 6 types of indicators namely economy, safety, environment, innovation, staff and community has been preliminarily set up by the Company, and almost 100 specific indicators have been established. The above system has generated extensive historical data for social responsibility work, and secured the comparativeness of the indicators set out in the CSR report, laying an assessment foundation for incorporating social responsibilities into corporate management and operations.

**Management system.** With a focus on incorporating the concepts of social responsibilities into the current management system and continuously pushing forward social responsibility management, the Company has developed three initiatives in the model of social responsibility, namely: integration of responsibility industry chain communication with stakeholders and integration of sustainable development.



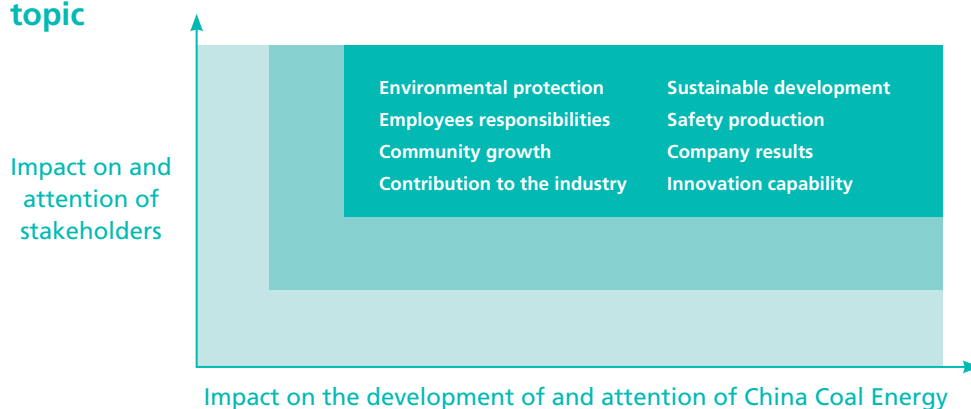
## Stakeholder Communication

China Coal Energy has improved the mechanism of compilation, publication and transmission of the social responsibility report, and has enhanced the procedure of the compilation and publication of the report. The Company convened main clients' regional forums, from time to time invited news media to come to China Coal Energy for interview, sought suggestions from the external experts of the social responsibility and listened to the advice of the staff representatives and employees. Through bringing in the participation mechanism of the internal and external stakeholders, the Company has effectively responded to the topics of social responsibility concerned by the stakeholders, which specifically improved the performance in social responsibility.

Stakeholder	Ways and channels for communication and participation	Essential topics	Feedback
Government	Regular work meetings, Report of information, Meetings for specific agenda	Tax contribution, Job creation, Contribution to social development	Operation in compliance with laws, Tax payment in compliance with laws, Promotion of economic development
Investors	Reports and notification, Regular visits, Road shows and Reverse road shows	Business operations, Operational risks, Corporate governance, Sustainable operation, Information communication	Maintenance and appreciation of the values of the state-owned assets, Protection on investors' rights and interests, Capital appreciation
Suppliers	Public tendering procedures, Work meetings	Business ethics, Fair cooperation, Mutual development	Fair procurement, Performance of contracts in compliance with laws, Formulation of Management Measures for Materials Procurement, Name Lists of Qualified Suppliers and Name Lists of Key Suppliers
Customers	Service hotline, After-sales service, Seminars, Regular visits	Product quality, Service quality, Business ethics, Satisfaction of individual needs	Provision of quality and customised products and services, Establishment of convenient sales network
Employees	Meetings of employee representatives, Surveys on satisfaction, Seminars, Mails and visits, Online college	Basic rights, Occupational health, Remuneration and benefits, Working environment, Career development, Democratic management, Life cares	Staff training, Provision of good working conditions, Provision of good working environment, Provision of long-term career development opportunities
Peer mining companies	Cooperation, Workshops on specific issues	Industry standards, Fair competition, Promotion of industry development	Cooperation, Experience sharing, Promotion of sustainable growth of the industry
Financial institutions	Meetings for specific agenda, Reports of information, Repayment of principal and interests in a timely manner	Business operations, Operational risks, Corporate governance, Credit facilities	Payment of principal and interests in a timely manner
Media	Information transparency	Publication of reports, Multi-channel information disclosure	Regular disclosure of information on social responsibilities and significant events of public concerns
Community and the public	Community activities, Environmental protection	Charity donations, Voluntary services, Community development	Disaster relief, Help for the poor and the needed, Environmental protection

## Identification of Social Responsibilities

### Analysis of essential topic



## Progress of Social Responsibility Work

**Integrating the social responsibility into the Company strategy.** In preparing the “Thirteenth Five-year Development Plan of China Coal Energy”, the Company incorporated the social responsibility concept into its development strategy through paralleled planning and implementation of social responsibility work, thus forming the top-level design of social responsibility management.

**Carrying out training on social responsibility.** To build up an internal learning and communication platform for social responsibility, the Company carried out training activities in a systematic and hierarchical manner through various forms including building intranet, holding meetings, inviting experts and starting columns for social responsibility. Externally, the Company actively participated in a range of professional training courses to broaden its horizons and raise awareness, including a social responsibility training session organised by the SASAC of the State Council, the international seminar of social responsibility report held by China WTO Tribune, and the public lectures on corporate social responsibility for Chinese enterprises hosted by Social Responsibility Research Centre of Chinese Academy of Social Sciences.

**Promoting the practice of the social responsibility.** At the beginning of 2016, the Company held the work meeting of social responsibility so as to listen to each work unit’s report of

social responsibility work in 2015 and arrange the major social responsibility tasks of 2016. Through carrying out the voting of excellent cases of the social responsibility, the Company promoted the awareness of social responsibility and practical ability of the subordinate enterprises, and encouraged qualified major subsidiaries to publish social responsibility report regularly. By strengthening social responsibility research, and exploring the social responsibility concept, connotation, target and pathway of the coal enterprises, the Company promoted its social responsibility to be implemented more effectively in the subsidiary companies.



Social Responsibility Work Meeting





## Overcoming Difficulties; Improving Quality and Efficiency

Scientifically Organising Production

Providing High Quality Products

Improving Quality and Efficiency

Accelerating Transformation and Upgrade

Performance in Economic Responsibilities

## Economic Responsibilities







## On Responsibilities

“China Coal Energy is completely equipped for a transitional upswing from loss to profit that is supported by national policies, improvement of the market environment, and a series of proper measures.”

Li Yanjiang, Chairman of China Coal Energy

The year of 2016 was a remarkable year for Chinese coal enterprises. Under the effects of the policies such as thoroughly promoting the supply-side structural reform and expediting to dissolve overcapacity of coal, the domestic coal market initially declined and gradually picked up, while the coal price stabilised and rebounded. By closely following market changes, the Company scientifically arranged production with focusing on quality enhancement and efficiency improvement, and promoted reform and adjustment, thus the production and operation proceeded steadily, and the Company successfully realised the turnaround from loss to profit. The Company achieved operating revenue of RMB60.632 billion, representing a year-on-year increase of 2.3%. Total profit amounted to RMB3.371 billion, representing a year-on-year increase of RMB5.896 billion. The net profit attributable to the equity holders of the Company was RMB2.027 billion, representing a year-on-year increase of RMB4.547 billion. Basic earnings per share amounted to RMB0.15, representing a year-on-year increase of RMB0.34.

## Scientifically Organising Production

In 2016, amidst the unfavourable situation of slowdown in the growth rate of macroeconomics, overcapacity in coal and continuous decline in demand, the Chinese government actively promoted the supply-side structural reform by introducing a series of policies such as overcapacity reduction, 276 days reducing production, strict governance on illegal, rule-breaking production and construction, control of the overcapacity production and unsafe production, which played an important role in stabilisation of supply of and demand for coal, and promotion of sound development of the coal industry. The coal price initially declined and gradually picked up, experiencing downturn in the first quarter, stabilisation in the second quarter, significant rally in the third quarter and strong rebound in the fourth quarter.

With efforts to overcome new challenges arising from cutting overcapacity and reducing production, the Company carried out coal production in a scientific way by adhering to the principle of maximum benefits, strengthened quality control of coal and reasonably arranged equipment maintenance. The Company also accelerated land acquisition and relocation work, properly coordinated overcapacity reduction, production reduction, quality enhancement and efficiency improvement. In the second half of 2016, the Company capitalised on market opportunities, especially the window period of favourable policy in the fourth quarter, and focused on production organisation and coordination between production and sales to strive to stabilise and increase production. Pingshuo Group made great efforts to tap its production potential, coordinated relocation of villages, technical renovation of open-pit mines and coal quality management, as well as proceeded production and operation steadily, achieving turnaround from loss to profit. Huajin Company utilised the advantages of safe and efficient mines, and coal type, maintained stable high yield and improved the recovery rate of clean coal to steadily enhance comprehensive profits. In 2016, the production volume of commercial coal reached 80.99 million tonnes, of which the production volume of thermal coal amounted to 71.27 million tonnes, and the production volume of coking coal amounted to 9.72 million tonnes.



## Case Study

### Pingshuo Group Achieved Turnaround from Loss to Profit

In 2016, adhering to the principle of profit maximisation, Pingshuo Group scientifically organised production, strengthened coal quality control, and maintained an efficient connection among production, transportation and marketing.

Taking coal quality, sources and market demand into consideration, Pingshuo Group dynamically adjusted their internal processing flow, increased the purchase of third-party coal for blending purpose, and reasonably optimised the product sales portfolio, guaranteeing the monthly production and marketing coordination for major types of coal, while also being able to meet the demand for coal during the G20

Summit with assured quality and quantity.

In 2016, the sales volume of commercial coal of Pingshuo Group was 52.50 million tonnes, including 31.09 million tonnes of premium coal, representing a proportion of 59.22% and 5.7 percentage points higher than planned. The raw coal production efficiency was 112 tonnes/worker-shift with 16 tonnes/worker-shift beyond the evaluation index. The “quality improvement, efficiency enhancement, and cost reduction” in the production and sales processes laid a solid foundation for Pingshuo Group to realise the turnaround from loss to profit in 2016.



Coal Production

The Company continued to strengthen production control of coal chemicals, optimised organisation structure, established management department of coal chemicals, promoted professional management, enhanced safety assurance and management innovation, and achieved a new industry level for the coal chemical production and operation. The equipment load of Yulin Olefin Project hit a new record high for an annual output of 710,000 tonnes of polyolefin, representing a year-on-year increase of 4.0%.

Tuke Fertiliser Project recorded an annual output of 1.855 million tonnes of urea, representing a year-on-year increase of 7.7%. Mengda Engineering Plastics Project maintained stable operation with high load in respect of its trial production. The olefin yield and test run hit new records of similar facilities with an annual output of 465,000 tonnes of polyolefin, laying a solid foundation for the official operation in the next stage.



## Providing High Quality Products

Pursuing the “market-oriented and efficiency-focused” operation philosophy, the Company stringently complied with national laws and regulations and quality standards of the industry in the process of production and operation, and constantly improved its quality management system, endeavouring to provide customers with high quality products and services. In 2016, Company did not involve in any legal disputes about product and service quality.

### Coal products

The Company further improved coal quality through perfecting coal quality management system, putting more efforts on the evaluation of coal quality management and inspection and optimising product structure. The ash content of the Company’s commercial coal declined by 0.32 percentage point year-on-year and the sulphur content declined by 0.03 percentage point year-on-year.

The Company made great efforts to improve the ability to optimise efficiency in the process of sales by enhancing quality control of coal in the entire production process, strengthening coal blending process, improving product quality and promoting the sales of self-produced coal. The Company vigorously expanded resources channels and enlarged the scale of proprietary coal trading to increase the market share, achieving sale volume of proprietary coal trading of 48.20 million tonnes, representing a year-on-year increase of 33.6%.

In 2016, the Company kept a close eye on market changes, strengthened market research, adjusted marketing strategies flexibly, analysed the needs of users, responded to market, optimised customer structure, and generally maintained smooth coordination between coal production and sales, and achieved a sales volume of self-produced commercial coal of 80.67 million tonnes, representing an increase of 670,000 tonnes over the annual plan.

### Coal chemical products

The Company fully utilised its advantage of centralised sales of coal chemical products, improved marketing network, explored regional markets, strengthened transport capacity assurance and lowered logistic cost so as to bring a smoother coordination between production and sales. In 2016, the sales volume of polyolefin accounted to 711,000 tonnes, representing a year-on-year increase of 5.2% and the sales volume of urea reached 1.980 million tonnes, representing a year-on-year increase of 12.9%. In 2016, under the circumstances where the international petroleum prices fluctuated at a low level and the price of domestic major coal chemical products fell sharply, the coal chemical segment of the Company still realised positive economic benefits, which enhanced the brand influence of China Coal.

The polyolefin products responded to the market demand quickly, conducted product grade transition in a timely manner and constantly expanded the application fields, and now have become a leading brand among the Company’s chemical products. Leveraging the Company’s strength in industrial chains, economy scale, quality and brand, the urea products successfully expanded into the southern market while consolidating the market shares in the northeast market. The Company achieved a stable exported market step by step with increasing influence of China Coal’s large granular urea in markets both at home and abroad.

### Power products

Fully integrating with the resources in the coal mining areas, the Company has adopted advanced environmental-friendly electricity generation techniques to construct the large-scale mine mouth coal-fired power plants and low calorific value coal power plants, so as to provide the market with reliable, stable and clean power.

### Coal mining equipment products

China Coal Equipment Company is a coal mining equipment manufacturing enterprise with the strongest overall competitiveness in China, mainly engaging in the production of conveyor equipment, support equipment and extraction equipment for working faces of underground coal mines which gain a leading position in China in terms of technical quality standards and market share. By capitalising on high quality products and professional team, China Coal Equipment Company continuously enhances the brand value of its products and service, exporting products to international markets, such as India and Australia, etc.



First Bag of Products Launched by Mengda Chemical Company



## Improving Quality and Efficiency

The Company persisted in organising coal production and sales in order to maximise efficiency. The unit cost of sales of self-produced commercial coal recorded a year-on-year decrease of 2.7%. The Coal Sales Centre broadened resource channels, optimised market layout, improved marketing efficiency, externally purchased 15.50 million tonnes of coal for blending purpose, and created RMB480 million in yield on the sales aspect. Coal chemical enterprises strengthened to conduct benchmarking and standard attainment, which helped them achieve a new set of standards in the industry with respect to production and sales. Total production costs were reduced significantly over budget.



### Case Study

#### Shaanxi Company Achieved High Output and Efficiency in Production Management

Shaanxi Company made its best efforts in comprehensive production management so as to facilitate high output and high efficiency. Shaanxi Company learned from successful past experiences in production and operation, thus continued to steadily promote safe and stable operation of the production facility under high workload. The annual production load remained at a level above 107% for the whole year of 2016. The production of polyolefin reached all-time highs, while the monthly maximum output exceeded 63,500 tonnes and the daily maximum output exceeded 2,090 tonnes. The production facility has been operated stably under high workload for more than 800 days and it was the coal to methanol to olefins production facility in

China with the longest operation time, the highest workload and the most stable production. This level of performance marked an industry record that would unlikely to be matched in short term. To meet market demand, the company successfully achieved the grade transition of polyethylene from 7042 to 7047 and 8320, with polypropylene from V30G, Z30S to K-8003, showing another breakthrough in polyolefin production. Therefore, the company benefited from an enriched product portfolio, played an active role in consolidating market position as well as attaining higher yield and efficiency. This also served as an example for future cases which will require timely grade transition of products in accordance with market demand.



Shaanxi Company Achieved High Yield and Efficiency



## Accelerating Transformation and Upgrade

The Company adheres to the optimisation of industrial structure, focuses on related business such as coal power generation and coal chemical, and strives to establish a new circular economic business line for coal, power, chemical and etc.

**Coal industry:** By adhering to economy of scale and implementing intensive management, the Company accelerated the construction of 5 modern mines each with ten-million tonnes of reserve based in Inner Mongolia and Shaanxi, and the initial working faces of the Menkeqing coal mine and the Hulusu coal mine were put into trial operation, which helped reinforce the Company's leading position in the coal industry.

**Coal chemical industry:** With importance attached to developing coal-to-olefin and large coal-to-urea industries, as well as in optimising development of the coking industry, the coal chemical conversion scale continued to expand. The Company's coal-based fertiliser project constructed in Inner Mongolia-Shaanxi base which is the largest single urea plant project in the PRC, has commenced operation and exported its high quality granular urea overseas. The coal-based olefin project has set records in terms of the shortest construction period and test run compared with the similar facilities in the PRC. The products have been widely recognised by the market. Other projects such as Mengda Engineering Plastics Project and Pingshuo Inferior Coal Comprehensive Utilisation Project have

entered into the joint trial operation phases, further pushed forward the utilisation of the classification of coal and enhanced product value and efficiency.

**Electricity industry:** The Company has pressed ahead with coal electricity integration through building new power plants and contributing capital to related projects. The Company is vigorously pushing forward low calorific value coal and pit-mouth power generation projects, with three large-scale power projects being constructed in bases in Shanxi, Xinjiang and Jiangsu, etc., which will lay a solid foundation for the Company to gain comparative cutting edges and improve its core competitiveness.

**Coal mining equipment industry:** Against the unfavourable backdrop of market downturn, insufficient order and escalating rampant competitions in the coal mining equipment industry, the Company promoted cost reduction, efficiency improvement as well as cost management, strived to maintain the market share of coal mining equipment, proactively expanded accessories services, non-coal operations and overseas business to steadily push forward reform and transformation. In the fourth quarter, the Company seized the opportunities of the coal market recovery, enhanced the efforts of market exploration and secured new orders, so as to ensure that the coal mining equipment business was in sound operation. The complete sets of equipment exported for the India Jhanjra EPC Project were granted trial commissioning test run certificate by Eastern Coalfields Limited in India, which validated a 6-year contract of production and thus laid a foundation for the Company to raise its influence in the international market.

## Performance in Economic Responsibilities

Name of Indicator	2014	2015	2016
Production volume of commercial coal (10 thousand tonnes)	11,184	9,547	<b>8,099</b>
Sales volume of commercial coal (10 thousand tonnes)	15,689	13,772	<b>13,235</b>
Production volume of polyethylene (10 thousand tonnes)	9.7	35.3	<b>36.1</b>
Production volume of polypropylene (10 thousand tonnes)	7.7	33.0	<b>34.9</b>
Production volume of urea (10 thousand tonnes)	105.6	196.3	<b>197.5</b>
Production volume of methanol (10 thousand tonnes)	57.7	78.6	<b>65.1</b>
Production value of coal mining equipment (RMB100 million)	55.6	43.1	<b>36.5</b>
Total Assets (RMB100 million)	2,427.06	2,569.80	<b>2,418.49</b>
Net assets attributable to the equity holders of the listed company (RMB100 million)	867.18	834.84	<b>859.20</b>
Revenue (RMB100 million)	706.64	592.71	<b>606.32</b>
Total profit (RMB100 million)	15.21	-25.25	<b>33.71</b>



## Safety is of Vital Importance, Life is the Most Valuable

Implementing Safe Production Responsibility

Enhancing Fundamental Construction of Safety

Strengthening Safety Supervision and Inspection

Improving Safety Guarantee Capability

Performance in Safety Responsibilities

## Safety Responsibilities





## On Responsibilities

"Safe production is vital for human life. It is crucial to attach more importance to safety, secure the investment in safety measures and strengthen safety management and hold the red line of safe production especially when we face more difficulties in our operations."

Peng Yi, Non-Executive Director of China Coal Energy

As a large-scale coal enterprise, China Coal Energy engages in various industries including coal production, coal chemical operations, power generation and coal mining equipment. With a large proportion of high-risk industries, China Coal Energy has a great difficulty in safety management. Especially against the downward trend of the coal industry in recent years, the Company has been facing great operating pressure and more severe challenges in safety production. Always adhering to the safety concept of "Safety is of Vital Importance, Life is the Most Valuable", China Coal Energy vigorously carries out the safety development strategy, implements responsibilities, consolidates foundation, highlights focal points and exercises strict supervision. While maintaining the continuously stable safe production situation, the Company achieved a fatality rate of 0.017 per million tonnes of raw coal production in 2016.

## Implementing Safe Production Responsibility

### *Attaching great importance to safety work*

With safe production as the top priority in business operation, the Company convened routine meetings of safety committee and of safety supervisory bureau directors for safety supervision on a regular basis, as well as safety work meetings, at which the Company analysed the existing safety risk and main problems of the Company and made arrangement and deployment of safety work concept and key safety work throughout the year. Against the impact of the volatile coal market on safe production, a series of safety measures were put forward to enhance the safety control over coal mine and coal chemical enterprises.

### *Improving safety policies and system*

The Company continued to perfect the safety responsibility system and safety management system, further clarifying the priorities and responsibilities of safety management for the company, subsidiaries, factories and mines as well as working teams. The Company established Coal Chemical Safety Supervision Bureau, and gradually improved the coal chemical safety management system. During 2016, all units revised and improved more than 1,560 items under safety management system, compiled 535 items under safety management procedures and checked and inspected the implementation periodically.



### **Implementing safety accountability level by level**

With a clear goal of “eradicating major or more serious accidents to achieve zero fatality” and focusing on the implementation of safety production responsibility system, responsibility undertaking were entered into at various levels so as to help implement safety accountability across the Company, and to follow up and supervise the implementation periodically. Top and graded leadership systems were established across the Company, under which the top leader was responsible for the overall implementation of safety production responsibility while the graded leaders were responsible for implementation of safety production responsibility within their respective scope of authority. Security, production and technical sectors at all levels were responsible for safety business through staying close to the grass-roots level and front-line, thus strengthening on-site safety management during production.

### **Perfecting appraisal and incentive mechanism**

11 affiliated enterprises and 11 mines (plants) were appraised for their safety management, and 94 responsible officers of 11 enterprises sat for the safety production responsibility examination. Each unit, level by level, carried out safety responsibility assessment, so as to further enhance the effective execution of safety responsibility.

### **Enhancing Fundamental Construction of Safety**

#### **Strengthening risk control**

China Coal Energy has established a risk pre-control management system, with risk pre-control management as its core, controls over unsafe human behaviour as its emphasis, cutting off causal link of accidents as its method, and continuous improvement as its operating mode. By organising the 12 enterprises to compile a safety risk report in early 2016, China Coal Energy timely identified medium and high safety risks, of which high safety risks were supervised on-site on a daily basis. Six major risks were labelled and urged to be tackled. Monthly scheduling and tracking were carried out regarding high safety risk control and monthly production safety video conferences were held to report the implementation of major safety work. Special attention was paid to the supervision and examination on mines and coal chemical plants with high safety risks. Professional technicians were organised to offer on-site supervision and guidance during the operation of highly risky projects.

### **Strengthening safety and quality standardisation construction**

China Coal Energy keeps putting safe and quality standardisation construction as the cornerstone of safe production, and establishes a standardised examination evaluation system and target planning, covering every aspect of engineering quality, work quality and management quality, thus achieving dynamic improvement and continuous enhancement.

Implementing plans level by level. In the beginning of 2016, the Company formulated a safety and quality standardisation plan, which was included in the Appraisal of Preliminary Award on Safety of the enterprise leader safety management. Each unit formulated its specific implementation plan, decomposed and implemented the plan level by level according to the annual target plan.

Innovating ways of working. The Company advanced a new vision of standardisation construction and issued the “Guidance on Refined and Programmed Management over Safety and Quality”, in order to lead its standardisation work towards a higher level. China Coal Shaanxi Company convened the meeting to push forward the production safety standardisation construction of coal chemical enterprises, in a bid to further promote the production safety standardisation work of coal chemical enterprises.

Achieving strict appraisal rating. During 2016, the assessment of safety quality standardisation was conducted on a total of 12 enterprises and 15 mines (plants). Each unit strengthened the assessment of standardisation by combining static and dynamic measures, with an aim of facilitating different positions to meet the standard and promoting standardisation upgrade. 10 enterprises achieved the standards for safety assured enterprise and super safe quality standardisation. 12 coal mines were named the “National First Level Safety and Quality Standardised Coal Mines for 2015”.



Safety and Quality Standardisation Construction





## Strengthening Safety Supervision and Inspection

Adhering to the principle of “full coverage, zero tolerance, strict law enforcement, and pragmatic approach”, the safety supervision departments at all levels went down to the grass-roots units and sites to carry out dynamic monitoring and real-time supervision for safe production, analysed various safety problems and implemented corrective measures so as to effectively prevent and eliminate all kinds of potential safety problems.

In 2016, the Company organised more than 140 safety inspections in total and all subsidiaries conducted over 1,300 safety inspections.

In total, over 35,000 items of hidden dangers were checked and solved with a rectification rate of 99.8%. Safety risk and potential hazard analysis meetings were held to identify timely any material risk or potential hazard existing in enterprises, and supervise and urge enterprises in carrying out preventing and control measures, rectification scheduling and tracking.

The Company carried out “one ventilation and three preventions”, water prevention, anti-dropping of shafts and other special inspections for special occasions such as the Spring Festival, NPC & CPPCC, National Day, conducted special events including “March Safety Warnings”, “Production Safety Month”, “100-day Safety”, strengthened daily supervision and checks for hidden dangers, and continued to maintain a safety-oriented environment.



Safety Inspection



### Case Study

#### Shanghai Energy Company Persistently Fought against the “Three Violations”

Shanghai Energy Company persistently fought against the “three violations”, and 3,770 times of “three violations” were handled with penalties exceeding RMB339,000. A crackdown atmosphere against “three violations” was maintained. Meanwhile, Shanghai Energy Company conducted a warning education session for “three violations” that involved touring reflections, exposure and warning education for all employees against 33 major or serious “three violations”. Shanghai Energy Company was to guarantee that everyone was educated even if only one of them violated the regulations and to supervise and urge all employees to understand the harm of “three

violations” as well as to develop their habits of rejecting rule-violating and working in accordance with regulations. On top of the code of conduct for employees, Shanghai Energy Company systematically summarised the experience and approach of treating the source of the “three violations”. All units formulated in total 105 implementation schemes for the building of teams with no “three violations”. Through specific assessment rewards and punishments, frontline workers were encouraged to promptly find and repress “three violations”. 153 teams with no “three violations” were initially established to control and reduce the occurrence of “three violations”.

## Improving Safety Guarantee Capability

### Ensuring safety investment

China Coal Energy profoundly realises that the more difficult the operation of an enterprise is, the more important safe production is. Therefore, the necessary safety investment should not be reduced; otherwise, safety deficiency would easily reappear in the long run. The key point is to spend money on the items which are most in

need of money, to highlight the major hidden danger treatment, and to renovate and transform the key facilities. In 2016, under the circumstances of financial constraint, China Coal Energy still made safety investment up to RMB1.43 billion in total, thereby establishing a basis for creating a safe production environment.

Pingshuo Group strengthened the development of its safety technology guarantee capability, finished 21 system reconstruction projects in total, such as "one ventilation and three preventions", electrical and mechanical transportation, power supply lines and other systems, and renovated and transformed 1,285 sets of old facilities.

### Strengthening safety training

China Coal Energy has effectively improved the safety technical awareness of the staff and established a firm basis for safety production by continuously perfecting staff training system, fully exploiting the potency of human resources, implementing multi-layered, multi-channel and dedicated safety training, promoting the safety awareness of the staff and fostering the safety concept of the staff.

The Company strengthened security situation education and accident warning education, strictly implemented safety training plan and held safety production training courses on the basis of the new version of Safety Regulations of Coal Mine, "one ventilation and three preventions" and water prevention which were tailored for coal mine production, safety and technology chiefs. In 2016, the Company held a total of 3,270 safety trainings of which the number of the attendees reached 214,000.

**214,000** attendees joined safety training

### Strengthening the management of emergency

China Coal Energy has completed a three-level emergency rescuing management system for the headquarters, subsidiaries (branches) and mines (plants), by reinforcing the establishment of emergency managing organisation and team, perfecting the emergency plan, carrying out normalised emergency drill, practically promoting the emergency responses and hands-on capability and strengthening the capacity of coping with the emergencies and eliminating the safety risk.

The Company revised the emergency plan for production accidents, conducted emergency rescuing drills of coal chemical production accidents, and declared national construction project for emergency rescue base in Yulin. All the units organised 861 emergency drills with 34,398 participants.

**861** emergency drills were conducted

On behalf of Shaanxi Province, China Coal Shaanxi Company took part in the Second National Rescue Technology Competition for Hazardous Chemicals and won the Group Excellence Award and a second prize for individual award.



## Case Study

### China Coal Energy Conducted Emergency Drill for Coal Chemical Accidents

To satisfy the demands for emergency rescue for coal chemical production accidents, to further strengthen the coordination among emergency organisations of the Company and affiliated enterprises, to improve emergency commanding, response speed and handling capability as well as to prevent accidents in coal chemical production, China Coal Energy conducted an emergency rescuing drill for major dangerous chemical leakage, deflagration and fire accidents on 28 June 2016, using the opportunity of the 15th National Safety Production Month.

The emergency rescuing drill simulated the leakage, deflagration and fire accidents of propylene tank in olefin centre of the Shaanxi Company Chemical Branch. The Branch took salvaging measures on site but the fire further expanded. Shaanxi Company requested support from local authorities immediately and reported to China Coal Energy. The accident was effectively managed through emergency plan and organised rescue. In this drill, each department and relevant enterprises familiarised with the Contingency Plan for Coal Chemical Production Accident of China Coal Energy, clarified the duties and responsibilities of related units and employees. The working relationship

was rationalised to guarantee smooth operation of each step and the safety awareness and emergency response of the staff were strengthened. The drill was of great significance to effectively control coal chemical accidents and minimise the harmful effects of accidents and to ensure the coal chemical production safety. The drill effectively tested the scientific nature and operability of the contingency plans, through which the Company's affiliated coal chemical enterprises gained practical experience for strengthening the emergency rescue capability.



Emergency Rescuing Drill

## Performance in Safety Responsibilities

### Safety Investment in 2014-2016

Name of Indicator	2014	2015	2016
Safe Production Expenditure (RMB100 million)	17.2	16.39	14.3

### Fatality rate of raw coal production per million tonnes in 2012-2016

Category	2012	2013	2014	2015	2016
National Coal Mines	0.374	0.293	0.257	0.162	0.156
China Coal Energy	0	0	0.013	0	0.017





## Building a Green China Coal Energy with Low-carbon Development

Improving “Green China Coal Energy” System

Promoting Energy Conservation and Consumption Reduction Fully

Promoting Pollution Control and Emission Reduction Constantly

Strengthening Management of Environmental Protection Risks

Enhancing Construction of Green Mines

Performance in Environmental Responsibilities

### Environmental Responsibilities





## On Responsibilities

“China Coal Ordos Energy Chemical Company leads the coal chemical industry in waste water treatment, having excellently fulfilled the responsibilities of central enterprises in green environmental protection.”

Wang Lixia, Member of the Party Committee and Director of the United Front Work Department of Inner Mongolia Autonomous Region

Always adhering to the national ecological civilisation construction strategy and green development concept, and establishing the core concept of “building a green China Coal Energy to sustain the ecological balance in nature”, China Coal Energy has set its significant development target as “creating a resource-conserving and environmental-friendly” enterprise. The Company accelerates the establishment of a clean, effective and sustainable modern energy system, improves the quality and benefits of enterprise development and constantly enhances the ability to fulfil social responsibilities.

## Improving “Green China Coal Energy” System

Led by the medium and long term green development outlines and the “Thirteenth Five-Year Plan” and adopting goal-oriented and problem-oriented approaches, China Coal Energy established and improved the “Green China Coal Energy” management and supervision system, laying a solid foundation for the management of energy conservation and environmental protection.

**We strengthened the organisation management system.** In respect of energy conservation and environmental protection, the Company established or designated management organisations, employed full-time and part-time management staff and improved four levels of organisation and management network that were composed of “headquarters, secondary enterprises, mines (factories) and sectors (workshops)”, providing powerful organisational assurance for the smooth operation of energy conservation and environmental protection in the “Thirteenth Five-Year Plan”.

**We enhanced the target management system.** In accordance with the production and operation plan of affiliated enterprises in 2016 and the relevant requirements of local governments, seven appraisal indicators, including integrated energy consumption for every RMB10,000 of production output, emission of sulphur dioxide and absence of major or serious environmental incidents, were devolved to secondary enterprises in time and included in the Responsibility Pledges for Operation Performance of Leading Officials. Annual evaluation indicators of secondary enterprises were devolved to grassroots units and responsibility pledges were signed level by level.

**We improved the system management.** Firstly, we pushed forward the development of energy management system. Pingshuo Group has finished compiling documentations of energy management system and manuals of energy management, obtained the “Energy Management System Certification”, which was issued by China Coal Association Certification Centre (Beijing) and smoothly passed the first supervision and audit for the energy management system. The establishment of an energy management system in China Coal Zhangjiakou Coal Mining Machinery Company passed the operational audit and appraisal organised by Zhangjiakou Development and Reform Commission. Secondly, we improved the management system for energy conservation and environmental protection. Affiliated enterprises formulated or revised more than 20 management systems for energy conservation and environmental protection, and improved the system for environmental protection management as well as reward and punishment.



**We perfected the green standard system.** The Company compiled three sets of green standards covering open pit mines, underground mines and coal preparation plants, qualified for expert appraisal. The Company published the Green Standards and Evaluation System of Coal Mining Equipment Manufacturing. China Coal Equipment Company formulated implementation plans for green standards and carefully carried out the standard trial operation, improved the management level of energy conservation and environmental protection of mining enterprises at the basic level and promoted the green development of enterprises.

### Promoting Energy Conservation and Consumption Reduction Fully

The Company focused on energy saving, and strived to consume minimal energy in its production and operations. Each base, industry, enterprise and field fully promoted the conservation of various energy sources. In 2016, the Company reached a comprehensive energy consumption of 8.47 million tonnes of standard coal and comprehensive energy consumption for raw coal production of 4.91 kg standard coal/tonne, leading the rest of the industry.

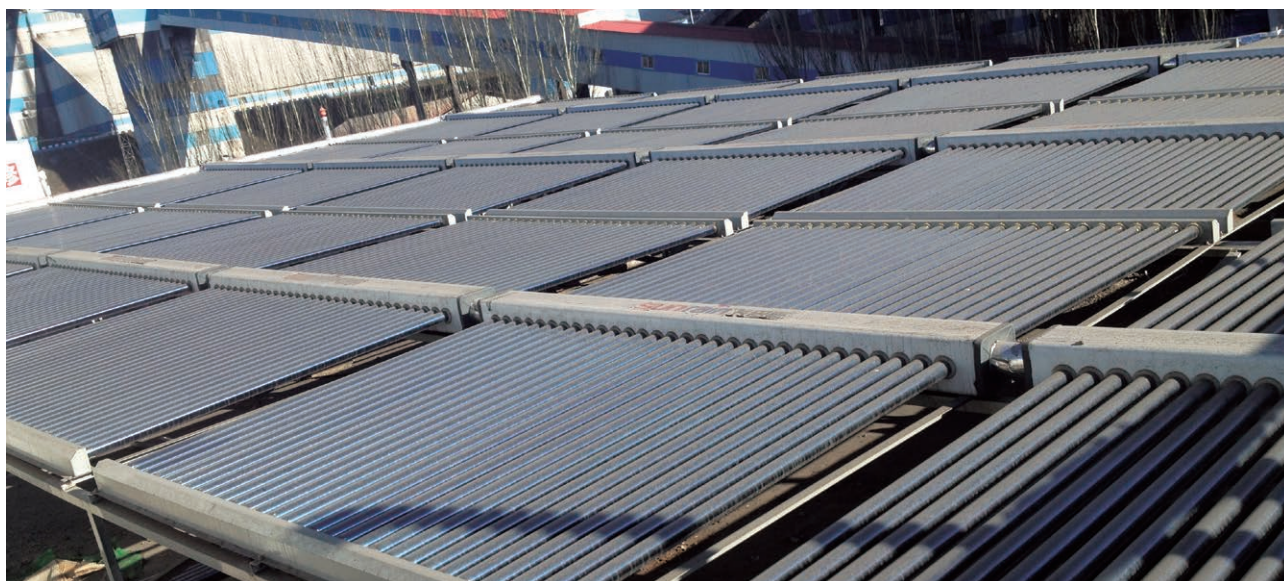
**We attached great importance to coal saving.** The Company conducted overall planning for regional heating by preferentially using residual heat of power plants, and promoting the usage of centralised heating in place of boilers that provided scattered heating. The Company reasonably determined the heating boiler capacity and gradation as well as balanced the heating demands in heating and non-heating seasons to avoid wasting resources. The Company carried out technical transformation of coal-fired industrial furnace by utilising the preferential blending combustion of coal gangue,

slurry, inferior coal and other fuels with low heat value. The Company strengthened the sealing measures in coal transportation and storage, improved loading and unloading management and reduced coal loss.

**We enhanced our power saving.** The Company selected energy-saving electromechanical equipment with high efficiency to replace backward equipment with low efficiency to increase the energy efficiency of electrical equipment. Energy efficiency of electromechanical equipment was monitored to achieve above level II in energy efficiency index for universal equipment such as fans, pumps and air compressor. The Company strengthened power usage management of on-peak and off-peak periods to reduce power costs.

**We reduced fuel consumption.** The Company optimised the mining, transporting and discharging design of open pit mines, and lowered the distance and height difference to reduce fuel consumption. The Company actively promoted the development and application of energy-conservative technology including the electrical truck stringing auxiliary technology for open pit mines, reduced fuel consumption and lowered energy costs. The Company promoted new energy sources, including methanol, dimethyl ether and natural gas, to replace diesel and to lower its consumption. The Company strengthened field management, stopped and eradicated phenomena such as abnormal under-loading, idling and no-loading. Residual and waste oil were timely recovered.

**We took full advantages of unconventional energy.** Based on their own resources, affiliated enterprises took full advantages of mine water, ventilation air methane, gas drainage and residual heat of air compressor to utilise low grade resources efficiently. Affiliated enterprises, depending on their geographical location, used various forms of unconventional energy including solar energy, wind energy, air energy for heating or cooling to replace conventional energy consumption.



Solar Energy Hot Water System of Anjialing Coal Processing Plant of Pingshuo Group



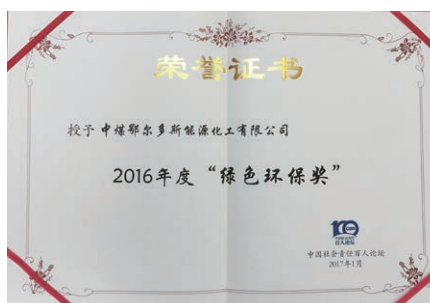
## Promoting Pollution Control and Emission Reduction Constantly

Under the principle of “controlling the increment, reducing the stock, focusing on key points and breaking through difficulties” for pollution control, the Company strengthened the control of pollution sources and placed equal emphasis on clean production and end management, while focusing on emission reduction in coal, coal chemical, electricity, equipment manufacturing and other industrial pollution and the improvement of the comprehensive utilisation level of wastes. In 2016, the emissions of sulphur dioxide, nitrogen oxide and chemical oxygen of the Company were reduced year-on-year by 15.5%, 39.9% and 17.9% respectively, and the emission of ammonia nitrogen was at the same level as 2015.

### We strictly controlled the management of air pollutant emission.

Following the “Action Plan on Prevention and Control of Air Pollution” issued by the State Council, the Company sped up the upgrading and renovation of facilities for dust extraction, desulfurisation and denitration in the existing boilers of power plants and coal-fired industrial boilers so that air pollutant emission could meet national and local standards as well as the requirements for total amount control. The Company focused on controlling air pollutants in Shanghai Energy power plant, Great power plant as well as the desulfurisation transformation of waste gas for coal chemical process in China Coal Shaanxi Company. Pingshuo Group completed the enclosure reconstruction of all open stockyards, effectively controlling the dust pollution in the mining area. Beijing Coal Mining Machinery Company assisted in the heavy pollution and air quality assurance work in Beijing by halting and limiting production when orange alert or red alert was issued to fully implement emission-reducing measures.

**We deepened waste water treatment in key fields.** In accordance with the characteristics and reuse ways of mine water, industrial waste water and domestic sewage, the Company adopted corresponding processing techniques to constantly increase the utilisation level of waste water on top of meeting emission standards. China Coal Ordos Energy Chemical Company, China Coal Yuanxing Company and China Coal Mengda Company achieved “zero” emission of waste water. China Coal Huajin completed the mine water treatment and reuse system project in Wangjialing to recycle all underground drainage. In 2016, the Company produced 16.16 million tonnes of mine water with a comprehensive utilisation of about 12.86 million tonnes and a comprehensive utilisation rate of 79.6%.



Certificate of the Award for Green Environmental Protection



Case of “Zero Emission of Waste Water” Won the Award for Green Environmental Protection

### We strengthened the solid waste management and comprehensive utilisation.

The Company comprehensively utilised coal gangue, fly ash, slag and other general industrial solid wastes for multiple ways, including power generation, construction materials, extraction of high value-added products, road backfilling and land reclamation so as to improve the resource utilisation efficiency. Solid waste which could not be utilised was disposed in accordance with Standard for Controlling Pollution from Sites for Storing and Disposing of General Industrial Solid Waste. A temporary warehouse was built in accordance with Standard for Controlling Pollution by Storing Hazardous Wastes for other hazardous wastes such as waste oil, waste catalyst and waste hazardous chemicals, which would be transferred to qualified units for disposal. In 2016, the Company produced 23.04 million tonnes of coal gangue with a comprehensive utilisation of about 19.55 million tonnes and a comprehensive utilisation rate of 84.9%.

### We commenced the management of greenhouse gas emission.

The greenhouse gas generated by our affiliated enterprises was mainly carbon dioxide (CO<sub>2</sub>) and methane (CH<sub>4</sub>). In 2016, the total greenhouse gas emission was 22.08 million tonnes of CO<sub>2</sub> equivalent. In accordance with the Notification of Launching the National Carbon Emission Trading System in China issued by National Development and Reform Commission, the Company urged and directed its affiliated power and chemical enterprises to report carbon emission as required by local governments. Some enterprises conducted carbon emission audit from 2013 to 2015. In the scope of the pilot project of carbon trading in Beijing, Beijing Coal Mining Machinery Company completed a carbon trading volume of 30,100 tonnes in total with a transaction amount of RMB1.5245 million.

## Strengthening Management of Environmental Protection Risks

With growing company scale and increasing number of hidden dangers of environmental protection, the Company followed the requirements of national environmental protection policies to, with an emphasis on preventing and controlling large risks of environmental protection, improve risk management and control system and solve prominent problems. We sped up the major construction projects related to energy conservation and emission reduction in order to assure the normal production and operation of the Company.

**We strengthened environmental emergency management.** The Company promoted the assessment for enterprise environmental risks to classify and rate root-cause of environmental risks. Sources of environmental risks were filed for management purpose, through which we could understand the status of the sources and formulate prevention measures for such risks. The Company perfected contingency plans for environmental emergencies. Pingshuo Group, China Coal Huajin Company and Beijing Coal Mining Machinery Company completed the compilation and evaluation of contingency plans for environmental emergencies, and filed the plans in local governments.

**We strengthened the management of construction projects according to law.** The Company strengthened the source control by conducting environmental impact assessment at the initial stage of projects in accordance with relevant environmental laws and regulations. The Company also enhanced the environmental protection management on projects under construction through

responses to environmental impact assessment and other related measures. Operation and management of environmental protection facilities were improved to generally fulfil the discharging standard.

**We conducted constant investigation and rectification involving environmental risks.** In accordance with Investigation Chart of Enterprise Environmental Risks, affiliated enterprises constantly carried out investigation and rectification on three categories of environmental risks related to legality and compliance, pollution control and operation management. The Company also determined, term by term, the responsible units, personnel, measures, standards and time for rectification. As a key aspect for on-site inspection, the Company tracked the monthly progress of the investigation and rectification of enterprises; such track would be included in the annual appraisal on energy saving and environmental protection. The Company stepped up its efforts in the communication and coordination with environmental protection department of local governments, speeding up the rectification progress.

**We strengthened the supervision of environmental protection.** The Company directed relevant enterprises to improve online monitoring and monitoring instruments for pollution sources, perfected various environmental protection parameters. The Company strengthened statistical quality control and supervision to assure timely, complete and reliable data information. The day-to-day analytical testing and monitoring on pollutant indices were improved, and supervision and inspection were normalised. The Company formulated timely and specific solutions and measures to resolve existing problems, with an aim of ensuring the normal operation of environmental protection facilities and fulfilling the standard of pollutant discharging.

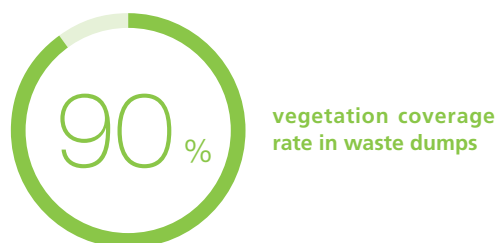
## Enhancing Construction of Green Mines

The Company organically combined green mine construction with production construction, land reclamation, and soil and water conservation, to realise the coordination of environmental benefits, economic benefits and social benefits. Up to 2016, nine mines of the Company, including Antaibao Coal Mine of Pingshuo Group and Yaoqiao Coal Mine of Shanghai Energy, were determined as national pilot units for green mines.

Over the development of more than three decades, Pingshuo mining area has constantly conducted ecological construction and environmental protection by forming a production chain that involved mining, dumping, reclaiming and planting. New modes of utilising mining lands were explored and implemented, such as "renting instead of requisition", industry re-feeding agriculture and ecotourism. Over 60,000 mu of forest has been planted and over 32,000 mu of land has been reclaimed. The vegetation coverage rate in the waste dump area has reached above 90%. The soil fertility, soil and water conservation, vegetation species and biodiversity have

Over **60,000** mu Forest planted

Over **32,000** mu Land reclaimed







Land Reclamation of Pingshuo Mining Area

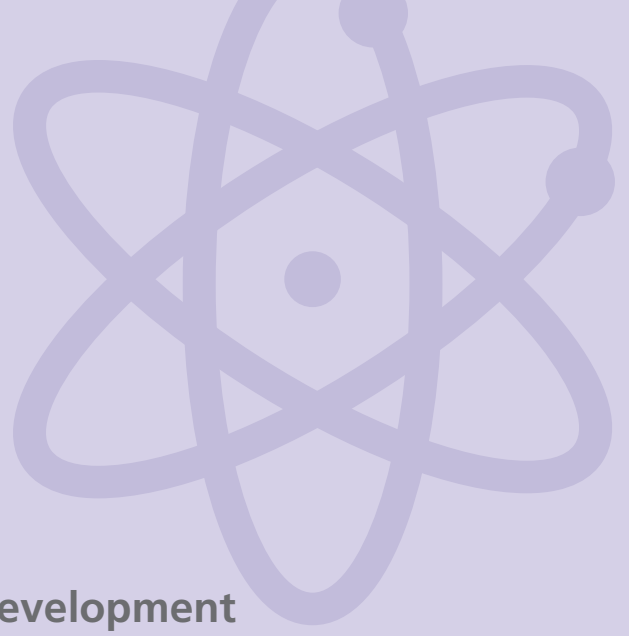
been improved compared with what they had been before the development. In 2016, Pingshuo Group further implemented gully control in its waste dump, carried out researches on subjects like soil improvement tests, standards for planting pollution-free greenhouse vegetables in the mining area, and achieved excellent ecological benefits. Pingshuo Group hosted a number of ecological investigations and social practices participated by teachers and students from universities as well as China National Coal Association.

## Performance in Environmental Responsibilities

Name of Indicator	2014	2015	2016
Integrated energy consumption per RMB10,000 production output (TCE/ten thousand yuan)	0.453	2.237	<b>1.606</b>
Recovery rate of mining area of coal mine (%)	88.9	89.1	<b>91.5</b>
Utilisation rate of coal gangue (%)	98.8	98.8	<b>84.9</b>
Utilisation rate of mine water (%)	84.4	75.4	<b>79.6</b>
Emission volume of sulphur dioxide (tonne)	10,693	13,045	<b>11,019</b>
Emission volume of NOx (tonne)	6,285	12,641	<b>7,596</b>
Emission volume of chemical oxygen demand (tonne)	719	1,034	<b>849</b>

**Note:**

1. As required by the superior management authority, the integrated energy consumption per RMB10,000 production output in 2014 and 2015 was calculated based on the price of 2010 and that in 2016 was calculated based on the price of 2015.
2. Recovery rate of mining area of coal mine included underground mines and open pit mines.
3. Utilisation rate of coal gangue decreased mainly due to the downward economy, reduced demand for comprehensive utilisation products and environmental disposal of unused coal gangue on the landfill site.



## Innovation-driven Development to Take the Lead in the Industry

Enhancing Technological Innovation Ability

Strengthening Key Technology Research and Development

Facilitating Progress in Industry and Technology

Developing Innovation and Entrepreneurship Activities

Performance in Innovation Responsibilities

## Innovation Responsibilities





## On Responsibilities

“In fact, innovation isn’t that mysterious. As long as you keep pondering, thinking, and visiting the forefront of production, you can find the point of innovation and produce a technological result. In Nanliang Coal Mine, many innovations were created by frontline workers.”

Li Zixiong, Innovation Studio of Shaanxi Nanliang Coal Co., Ltd.

Technological innovation is an inexhaustible motive force for the economic growth. China Coal Energy has always placed the technological innovation in the core position of driving the enterprise development, transformation and upgrading, continuously deepened the integration model of industry-university-research, actively explored new paths for in-depth blending of high technology and industry, and strived to achieve the new change from the production-driven enterprise to the technology-driven enterprise.

## Enhancing Technological Innovation Ability

With the improvement of the independent innovation capability as the core, the demand of industrial technology as the orientation, the research institutions’ development of the key core technology as the lead, the breakthrough of the production line research by the grass-roots employee innovation studio as its base, specialised maker space as main body of result incubator, and the strategic cooperation of industry-university-research as its support, China Coal Energy has built and improved the technological innovation system with the unique characteristics of China Coal Energy which combines independent innovation, collaborative innovation and mass technical innovation in one.

In 2016, the Company completed the centralised control system simulation platform of the coal mining working face with the backing of the National Energy Mining Equipment Research, Development and Experiment Centre and achieved a new upgrade in its ability of research and development. Zhangjiakou Coal Mining Machinery Company was recognised as “the National Technological Innovation Demonstration Enterprise” by the Ministry of Industry and Information Technology of China and became one of the only two companies gaining this approval in the coal industry. All national and provincial research and development institutions of the Company passed annual reviews. A new high-tech enterprise was established. “The Proposal for Industrial Transformation, Upgrading and Technological Innovation of the Equipment Sector in the ‘13th Five-Year Plan’” was prepared and completed, which has instructive significance in guiding and promoting the transformation and upgrading of the equipment industry.



**By the end of 2016, the Company has already completed the construction of the following:**

1 National Energy Mining Equipment Research, Development and Experiment Centre	3 National Enterprise Technology Centres	2 National Energy Technology and Equipment Assessment Centres
6 Provincial Enterprise Technology Centres	3 Provincial Engineering Research Centres	8 State-accredited Laboratories
4 Post-doctoral Research Centres	8 High-tech Enterprises	1 Coal Chemical Research Institute

## Strengthening Key Technology Research and Development

In 2016, the “Demonstration Project of Key Technology Innovation and Industrialisation for Fully Mechanised Longwall Mining with Annual Output of 10 Million Tonnes”, a low-carbon technology innovation and industrialisation demonstration project of the National Development and Reform Commission undertaken by China Coal Energy, passed acceptance inspection. The project has successfully developed an automated comprehensive mining equipment outfit, a working face information-integration system and a remote intelligent control system, formed the model digitalised coal mine of “One Shaft and One Working Face” with annual production of 10 million tonnes and built the low-carbon, energy-saving and environmental friendly demonstration base, laying an industrial foundation for China’s coal industry to develop towards the energy-saving, green and low-carbon direction.

The “Development and Application of Fully Automatic Plough Mining Face Equipment”, a subject of the National 863 Programme which the Company undertook, was accepted by the Ministry of Science and Technology, and it achieved breakthroughs in a number of remote control technologies, and improved equipment automation and intelligence level.

Complete fully mechanised mining equipment for thin coal seam, automatic low height roadheader and ultralow auxiliary equipment were developed by the Company in its key technological project “Development and Application of Technology and Complete Equipment in Thin Coal Seam Mining”. More than 10 sets of these equipment have been commercialised and put into operation.

The “Technology of Rapid Drivage in Coal Gallery” project achieved more than 800m/month of drivage using roadheader and bolter under complex geological conditions, providing technical support for coal production.

The “Technology Research on Long Period Stable and Optimised Operation for BGL Gasification Unit” project achieved the single unit continuous operation cycle of 186 days, reaching an international advanced level, and is the first to pass the 72-hour performance assessment among the Company’s peers.

The coal chemical enterprises successfully developed, promoted and applied the coal chemical gasification wastewater treatment technology and achieved an upgrade in terms of environmental protection; built the automated, refined and visualised intelligent control platform for coal-to-olefin production process, which effectively ensured safety, high efficiency and continuous production of the coal chemical industry and achieved the overall leading technology in China.



China National Coal Mining Equipment Company Limited closely follows users' requirements and improves innovation efficiency. The intelligent complete set of scraper conveyor of Zhangjiakou Coal Mining Machinery Company successfully served in the 8.2m super mining height in extreme thick seam. The intelligent super mining height hydraulic support of Beijing Coal Mining Machinery Company overcame a series of key technical problems, achieved innovation breakthrough and drew widespread attention among the industry. The ultra cutting height coal shearer of Xi'an Coal Mining Machinery Company attained a highest daily output of 30,000 tonnes and a highest monthly output of 700,000 tonnes, and the technical performance of the whole machine reached the international advanced level.

Major equipment localisation process was sped up, saving a procurement cost of RMB150 million. The localisation results of China National Coal Mining Equipment Company Limited has contributed RMB245 million in output value.

In 2016, the Company made a batch of high-level and important technological achievements, which provided new impetus for its innovation and development. The Company won a total of 14 industrial and provincial technological progress awards. Two of these achievements won the first prize of Science and Technology Award of China National Coal Association and one achievement won the Shaanxi Provincial first prize of Technological Progress Award. The Company obtained 190 new patents, including 45 invention patents.

## Facilitating Progress in Industry and Technology

China National Coal Mining Equipment Company Limited attached to China Coal Energy is the largest manufacturing company in coal mining machinery in China. At present, it has 7 coal machinery production bases in Beijing, Zhangjiakou, Shijiazhuang, Xi'an, Handan, Fushun, and Panjiang, Guizhou. It is capable of R&D and manufacturing of complete sets of comprehensive mining equipment used in coal mines, and has the leading market share of high-end coal machinery equipment. China Coal Energy promotes the development of coal mining machinery by adhering to the development concept of "High-end, intelligence, complete-set, and internationalisation", provides service for the construction of large coal bases, and plays a facilitating and demonstration role for the overall improvement of equipment level, safety level and production efficiency in the coal industry of China.



Coal Chemical Experiment



## Case Study

### China National Coal Mining Equipment Company Limited Boosted Innovation and Development of Chinese Coal Machine Manufacturing Industry

With an order from the control centre, the armoured face conveyor, coal shearer and roadheader started one by one. The simulation of underground coal extraction by three coordinated equipment in working face commenced. On the site of the mining and excavating equipment comprehensive laboratory of China Coal Zhangjiakou Coal Mining Machinery Company Limited, “ground” experiments of coal machine equipment are held constantly.

The National Energy Mining Equipment Research, Development and Experiment Centre is the only research and development centre in China’s coal machine industry approved by the National Energy Administration, and its comprehensive mining and excavating equipment laboratory is the world’s largest and the national first comprehensive mining and excavating machine laboratory at present. In recent years, the Research and Development Centre has completed the world’s first simulated coal mine working environment construction, built a coal mining equipment experiment and test platform which

met international advanced standard. These achievements provided a strong platform and technical support not only for the technological development of the company, but also for serving the industry and undertaking the state’s major research and development project on coal mining and excavating.

In 2016, the Research and Development Centre strengthened major technological research, focused on the promotion of 30 subjects, such as subjects in the National 863 Programme and the National 973 Programme, low-carbon projects of the National Development and Reform Commission and key technological projects of China National Coal Group Corporation, and carried out development and research smoothly. In 2016, the tests for over 220 heavy-duty roof supports were completed. At the same time, the centre undertook the inspection tasks of over 20 sets of products from over 10 peers. Moreover, it carried out 177,000 experiments on the exported hydraulic supports in accordance with the European standards and won the approval of foreign customers.



The National Energy Mining Equipment Research, Development and Experiment Centre





On-site Skill Teaching in Liu Wei Innovation Studio of Pingshuo Group

## Developing Innovation and Entrepreneurship Activities

In 2016, the Company focused on eliminating losses, overcoming difficulties and increasing quality and efficiency, and constantly stimulated the employees' vitality and potential of innovation and entrepreneurship based on their positions. The Company issued the "Guidance on Further Promotion of Mass Innovation and Public Entrepreneurship of China Coal Energy", held a forum on innovation and entrepreneurship, and encouraged enterprises to carry out distinctive activities of innovation and entrepreneurship. Throughout the year of 2016, the Company completed a total of 55 grass-roots innovation studios, including 1 national skill master studio and 10 skill master studios in the coal industry, effectively promoting more precise coupling of position innovation and entrepreneurship to the enterprise and site demand, and forming the lively situation of "all striving to be innovators".

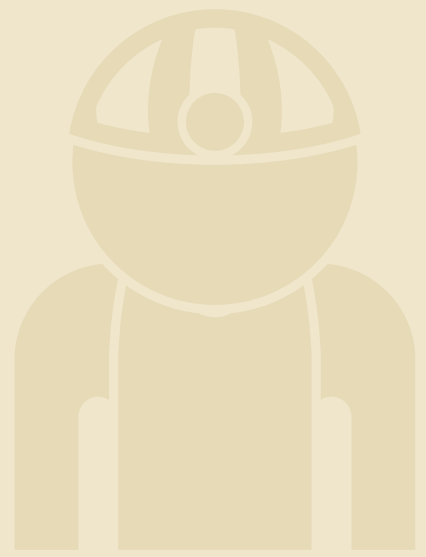
In view of technical bottlenecks and problems in the production line, the Company organised various forms of on-site technical innovation activities, and came to a situation of innovation from

the scene, research based on the scene and the results applied to the scene. In 2016, the Company carried out and promoted over 700 "five small" technological projects and results, and achieved significant safety and economic benefits. One of the achievements was awarded the third prize of the enterprise-group of the 2016 "China Innovator" innovation and entrepreneurship competition and another won the outstanding employee technical innovation award of the All-China Federation of Trade Union.

Based on the Association of Technicians, Zhangjiakou Coal Mining Machinery Company created 7 employee innovation studios and gathered 304 highly-skilled talents to perform research and create benefits, implemented over 190 innovation projects in total. The "Zhang Yuqun Master Studio" of Beijing Coal Mining Machinery Company targeted the improvement of squad production rate and stable product quality as the goal, effectively breaking technical problems, such as the thin-walled deep hole processing technique of the safety valve, and steadily promoting the performance by technologies.

## Performance in Innovation Responsibilities

Name of indicator	2014	2015	2016
Technological investment (RMB100 million)	14.92	10.83	9.48
Number of technological advancement awards above industry level (items)	19	22	14
Number of patents (items)	186	241	190



## Adhering to People-Oriented Philosophy and Sharing Results of Development

Safeguarding the Legitimate Rights of Employees

Promoting Career Development of Employees

Sharing the Results of Corporate Development

Performance in Employee Responsibilities

### Employee Responsibilities







## On Responsibilities

“For four years, by growing from a newly graduated student into a junior worker, I have earned an extra responsibility to the corporation. In the meantime, I have gained skilled operation and rich experiences, and harvested a sweet love and a happy family.”

Li Wan, Chemical Analyst of Analysis and Test Centre of China Coal Shaanxi Company

Employees are the foundation of an enterprise and closely tied to its development. China Coal Energy always adheres to the people-oriented philosophy of responsibilities, safeguards the legitimate rights of employees, actively advocates the democratic management, cares for the health and lives of employees, lays stress on the cultivation of their abilities, goes all out to build a development platform for employees, thereby realising the synchronous development of both the enterprise and employees.

## Safeguarding the Legitimate Rights of Employees

### *Regulating employment management*

In strict compliance with the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China and other relevant laws, regulations and policies, China Coal Energy insists on equal opportunities and regularised procedures in employment and has established a selection and employment mechanism that is fair, democratic and competition-based for picking the best talents. Announcements are made to public when candidates are selected, thereby ensuring transparency in information disclosure, recruitment process and result notification. China Coal Energy forbids all forms of workplace discrimination, and there are no instances of child labour and forced labour. Besides, China Coal Energy actively provides employment opportunities for people with disabilities, ethnic minorities and veterans. China Coal Energy protects the rights of female employees by equally remunerating employees who hold the same position, regardless of gender, as well as by forbidding hiring female employees to work in underground mines. China Coal Energy establishes and improves the system for leave and holidays to ensure that employees have the normal right to rest and take leaves. As of 2016, China Coal Energy had a total of 47,113 employees, 8,469 of which were female employees, accounting for 18%. In 2016, China Coal Energy entered into employment contracts with 100% of its employees.

China Coal Energy enhances the competition-based system for picking the talents and vigorously promotes a market-oriented approach in talent acquisition and competition-based employment. In 2016, according to the needs of the development of core businesses, the Company introduced senior management personnel in electric power business and other areas from exterior sources. The coal chemical management department and coal chemical products sales centre launched a full open competitive employment and public recruitment. The subordinate enterprises, such as China Coal Heilongjiang Coal Chemical Company, China Coal Shaanxi Company, China Coal Huajin Company, etc., practised open recruitment and achieved good results.

### **Facilitating democratic management**

China Coal Energy has established and improved the management work systems including the employee representative meeting. By holding employee representative meeting, the Company discusses important development matters and hot issues affecting the interests of employees and ensures their rights to information, supervision and participation in decision making. The Company keeps smooth communication with the employee by various means and channels, holds forums, listens to employee's requests and widely collects their opinions and suggestions, so as to draw on collective wisdom and absorb all useful ideas, and stimulate the sense of belonging and ownership in all employees.

### **Placing strong emphasis on occupational health**

The Company conscientiously implements the Law of the People's Republic of China on Prevention and Control of Occupational Diseases, adheres to the prevention policy against occupational hazards of "prevention first, combination of prevention and control, and comprehensive management", improves the system construction, strengthens the occupational health training and education, ensures the capital investment in prevention and control, and strengthens supervision and inspection, preventing and controlling occupational hazards from the source to effectively protect the physical and mental health of employees.

China Coal Mengda Company has 14 occupational health managers. In 2016, China Coal Mengda Company further improved the responsibility of occupational health management, and revised 13 occupational health management rules, so that the employees could follow the rules in production, which ensured the safety and health of employees.

Pingshuo Group increases the publicity and education on prevention and control of occupational disease, and enhances occupational health training. The induction training for the new employees shall not be less than 8 class hours, and the on-the-job training shall not be less than 4 class hours. Through these trainings, employees will become familiar with rules, regulations and operating procedures, and they are taught to master the skills for safe operation, and to make appropriate use of occupational disease prevention equipment and personal protective equipment.

According to the control and prevention needs, Shanghai Energy Company allocates enough special funds from its occupational safety fund every year for the prevention and control of occupational hazards. These funds are used for the physical check-up, publicity and education, training of occupational health and the prevention and control of occupational hazard sources to reduce occupational harms.

China Coal Ordos Energy Chemical Company carries out on-site testing and evaluation on occupational hazards. In terms of noise, 34 types of work and 228 work sites were tested; in terms of dust, a total of 44 work sites were tested; in terms of toxic substance, tests were made for 15 toxins.



#### Case Study

#### **Shanghai Energy Company Invested over RMB20 Million to Ensure Employees' Occupational Health**

In 2016, Shanghai Energy Company invested a total of over RMB20 million to strengthen the source control of occupational hazards and related remedial actions.

Focus was put on tackling dust control of the excavation working face. The company has installed dust gauze in the return airways of the excavation working face and the coal mining working face, and installed water curtain on the windward side of the dust gauze. Dust reduction rate has since then exceeded 60%. The company applies coal seam advanced water injection, which increases the coal moisture rate by more than 2% and reduces the dust concentration caused by mining in coal seam. Besides, the company also has installed pressure pump on equipment, which strengthens the spraying and dust prevention effect during comprehensive mining.

Construction of dustless mines was carried on. Supports were provided to the three aspects of technology, management and

operation. Dust prevention and control were promoted from result-oriented to process-oriented, from single passive control to active control at source.

Full-time dust measurers and dust measuring instruments were deployed to do the daily dust monitoring. Mine safety monitoring system has been installed to monitor and control toxic and harmful gases in a dynamic manner. Installation ratio of gas monitoring, power shutdown control instruments and sensors reaches 100%. Installation ratio of the system for automatic power shutdown in gas overrun situation is 100%.

Up till now, Shanghai Energy Company has been recognised as the "Advanced Unit in Occupational Disease Prevention and Control" by Jiangsu Provincial Centre for Disease Control and Prevention for 10 consecutive years.



## Ensuring the remuneration of employees

China Coal Energy always focuses on the employees' benefits. Confronted with the severe downward situation of the coal industry, the Company continuously deepened its reform of remuneration system and kept strict control of the total labour cost for the sake of cost saving and efficiency increasing.

In accordance with the principle of "salary rises as benefits rise; compensation drops as benefits drop", the Company strengthens the total salary budget constraints, adjusts the existing wages and intensifies the reform of income distribution when salary increment reduces. The salary policy inclines to the frontline workers, guaranteeing the basic salaries and benefits of employees and maintaining a stable workforce.

Despite poor performance of the overall coal industry, delays or arrears of wages in some coal enterprises, the Company strengthened the overall planning of fund utilisation, established the monthly reporting system of delayed wages, conducted the macro-control from the company level and gave priority to wage payment to employees. No arrears of wage occurred during the year of 2016.

## Promoting Career Development of Employees

### Improving overall quality of employees

We believe that employees are the main force for enterprise development and the growth of the employees and the company

are complementary to each other. We advocate the establishment of a learning organisation, encourage employees to establish the concept of lifelong learning, and strive to build a platform for capacity training and potential development for the employees, and broaden the stage for skills upgrade and comprehensive growth, thus providing conditions for employees' personal development.

We have established the framework of "great training" as we have developed and improved the three training bases, namely China Coal Vocational and Technical College, Pingshuo Group Education and Training Centre and Coal Chemical Training Centre. China Coal Internet Academy and China Coal Party School Internet Platform have been set up to provide a variety of learning modes for our employees.

We reinforced skill training on various types of work and professions in mining and processing of coal, construction, electrical engineering and coal chemical operation through coordinated use of internal training resources. "Training for excellent team leaders" and "Training for 'Titanium' blue-collar elites" were held. After the trainees returned to their enterprises, they played positive roles at production fronts of technological transformation and safety management. Coal Chemical Training Centre of China Coal compiled a series of 33 books of training materials in 2016, covering all devices and professional posts, such as methanol, olefins, thermoelectric and utilities, providing support for the cultivation of coal chemical talents for the Company.

UP to the end of 2016, China Coal Energy boasted of 2 members selected in the State-level Candidates of the New Age Hundred-Thousand-Ten Thousand Talents Project, 238 senior professional managers in the coal industry, 33 "master technicians in the coal industry", 4 "excellent technicians in the coal industry" and 20 studios



Coal Chemical Training Site

for master technician in the coal industry, and 4 employees awarded the honorary title of “national technical expert” by the State Ministry of Human Resources and Social Security.

### Facilitating staff development path

According to the features of the industry and development needs of employees, the Company offers three paths, namely managerial and administrative job path, professional skill job path and technical expertise job path, for staff’s career advancement. Promotion evaluation systems are improved from time to time in order to provide diverse paths and fair chances for staff development.

In 2016, a total of 3,178 employees participated in 6 series of professional title evaluation covering, inter alia, engineering, and 2,291 of them passed the evaluation, with a passing rate of 72.09%. Professional skills appraisal management is also strengthened. In 2016, 3,119 employees from coal, electrical, chemical engineering and other professions were assessed for the qualification of respective work types, and 2,023 of them passed, with a passing rate of 64.86%.

## Sharing the Results of Corporate Development

China Coal Energy provides more benefits to employees while developing the company, so that the employees can share the results of development. By improving the working and living environment, the Company creates a great atmosphere of the enterprise caring for employees and employees loving the enterprise, promoting the comprehensive development and overall progress of both the enterprise and employees.

### Work and life balance

With the purpose of building a harmonious enterprise, China Coal Energy organises various cultural and recreational activities to enrich the spare-time cultural life of employees, so as to achieve employees’ work and life balance, and cultivate the corporate culture with distinctive characteristics, thereby constantly raising the happiness index of employees.

#### UP to the end of 2016

2

members selected in the State-level Candidates of the New Age Hundred-Thousand-Ten Thousand Talents Project

238

senior professional managers in the coal industry

33

master technicians in the coal industry

4

excellent technicians in the coal industry

20

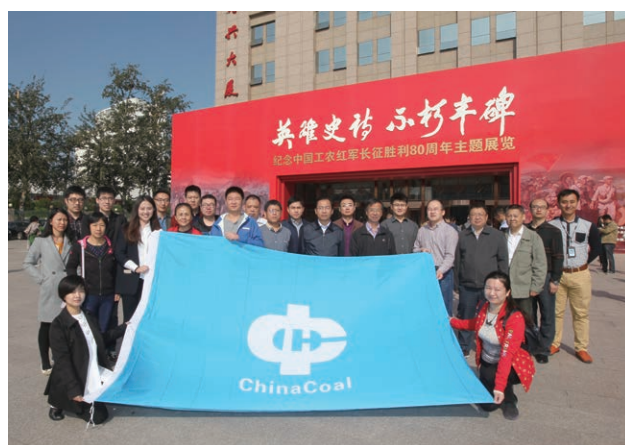
studios for master technician in the coal industry

4

employees awarded the honorary title of “national technical expert”



“China Coal Cup” Badminton Match



Visiting the Exhibition of the 80th Anniversary of the Long March





## Helping employees in need

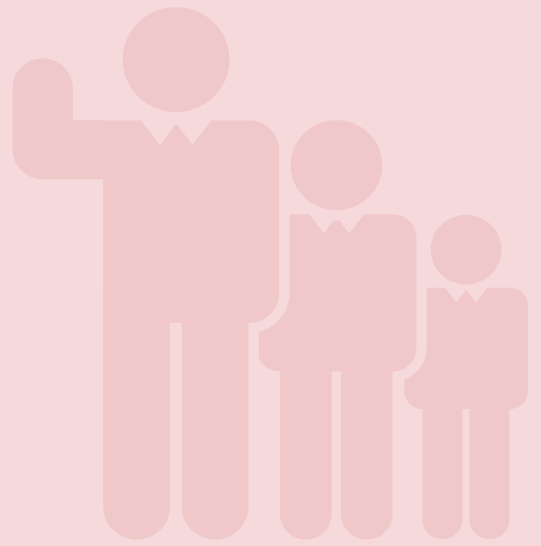
The Company always pays attention to the disadvantaged and employees in need. Surveys are conducted for targets of assistance, relief cases are properly filed, and relief funds are rationally utilised. We care about and express sympathy for employees in need, injured employees and retired employees, therefore, they can feel the warmth from the corporate family.



Expressing Sympathy to Employees in Need

## Performance in Employee Responsibilities

Name of indicator	2014	2015	2016
Number of on-the-job employees	54,150	52,648	<b>47,113</b>
Contract signing rate (%)	100	100	<b>100</b>
Social insurance coverage (%)	100	100	<b>100</b>
Trade union participation rate (%)	100	100	<b>100</b>
Staff turnover rate (%)	1.8	1.6	<b>2</b>



## Benefiting the People's Livelihood and Repaying the Society

Benefiting Local People's Livelihood

Supporting Frontier Development

Facilitating Targeted Poverty Alleviation

Developing the Social Benefit

Performance in Community Responsibilities

### Community Responsibilities





## On Responsibilities

“Since its arrival at our village, the working group of China Coal has brought comfort to the poverty-stricken families, provided us with an employment platform, helped us thrive, and enabled us to feel the beauty of life.”

– Hainipan · Sidike, a villager of Akesu Prefecture of Xinjiang Uygur Autonomous Region

In recent years, coal enterprises have witnessed difficulty in production and operation due to overcapacity of the industry and falling demand in coal. Facing the serious situations, China Coal Energy, while attaching importance to value creation and pursuing sustainable development, persisted to achieve a win-win situation between the enterprise and the locality, actively supported the development of local economy, organised various activities to help and support the underprivileged, made donations for education and relieve the disasters, which contributed its due share to the local economic and social development.

## Benefiting Local People's Livelihood

China Coal Energy, with its own funds, labours and technologies, actively participates in local economic construction and offers assistance to communities in project construction, production, sales, etc., to promote the upgrade of local industries and economic development, achieving the win-win harmony with local government. In 2016, the total social contribution of China Coal Energy reached RMB22.627 billion, including taxes, salaries, realised net profit and interest cost, and the social contribution value per share reached RMB1.71. All kinds of taxes and fees amounted to RMB6.274 billion, accounting for 10.42% of the operating revenue. In 2016, the donation made to the society and poverty alleviation funds utilised by China Coal Energy amounted to RMB1.379 million.

### *Promoting local employment*

China Coal Energy has always been insisting on the employment modes including open recruitment and labour dispatching to actively create and offer job opportunities in the places where its businesses are performed. Implementing relevant local policies, China Coal Shaanxi Company gives priority to introducing local talents as regular employees to promote the employment of Shaanxi Province and Yulin City. Now, over 480 of registered employees of this company are from Shaanxi province (including over 360 employees from Yulin), constituting almost half of the total employees. Shaanxi Company also works together with local employment agencies to give priority to the recruitment of local workers for outsourced operations. 40% of the workers come from Yulin.

### *Strengthening local purchase*

Adhering to all-win development, China Coal Energy strengthens the cooperation with local authorities and drives the development of local industries such as transportation and service industry, making contribution to the local economic development and social stability. For the tender purchasing of the bulk materials, local enterprises and products would be preferred under the circumstance of same quality and price.



### ***Building harmonious community***

China Coal Energy has always been focusing on the impact of enterprise development on the surrounding community by insisting on achieving a win-win result of the enterprise and the locality to build a harmonious community.

Pingshuo Community is the only residential area in the ancillary construction of Pingshuo Group. Pingshuo Group followed the requirements of “high starting point, high standard and high quality” since the early stage of the planning of the Pingshuo Community, which was built separately from the mining area in order to be living-friendly for employees and their families. To establish the Pingshuo Community as a first-class mining community in China, Pingshuo Group followed the requirements of the “Guidance on the Construction of Harmonious Community in the National Coal Industry,” by regularly conducting specific studies on the planning and cultural development of the community and formulating working plans. Special funds for community development were raised and the investment in infrastructure was increased to implement a series of measures for people’s benefit and to ensure rapid community development. In recent years, Pingshuo Community has won the title of “Civilised and Harmonious Community” of Shanxi Province, and ranked among the first-batch of “Model Areas of Harmonious Community Development in the National Coal Industry,” and “Safe Community in China”.

### **Supporting Frontier Development**

In accordance with requirements of the national economic development policy, industrial policy and regional planning, China Coal Energy supports economic and social development of Xinjiang and other ethnic minority areas by making use of its own business advantages and focusing on the needs of the local people’s livelihood, and makes positive contribution to social stability and long-term stability of Xinjiang.

China Coal Energy Xinjiang Branch has established three project companies in Yili, Hami and Changji, respectively. In 2016, RMB620

million was invested in projects in Xinjiang to promote the local economic development. The construction of the second Power Plant located in the north of Wucai Bay, Zhundong, Xinjiang has reached the milestone of topping out the main building framework and chimney structure in 2016. Since commencement, the total investment in this project has exceeded RMB1 billion.

In accordance with the relevant requirements of Xinjiang Uyghur Autonomous Region, China Coal Energy Xinjiang Branch conscientiously carries out the activity of “Visiting the People, Benefiting People’s Livelihood and Gaining People’s Support”, and has been sending the working groups to Tuowanke Ailaimu Kuduke Village, Ayi Bage Town, Awati County for three consecutive years. Through unremitting efforts of the three working groups, this village removed its labels of “Weak and Slack Grassroots Party Organisation” and “Key Unstable Village” in 2016. Based on the project planning of “Benefiting People’s Livelihood,” Xinjiang Branch actively promoted various poverty alleviation works of the village. Xinjiang Branch also took part in the activity of “Unity of Ethnic Groups as a Family” in the autonomous region by matching relatives between working group members and “four sorts of senior citizens” (senior soldiers, senior cadres, senior Party members and senior models), immigrants of the autonomous region, people who lost contact in the village on an one-to-one basis, in order to enhance national solidarity and friendship.



Construction of No.2 Power Plant in the North of Wucai Bay, Zhundong





## Facilitating Targeted Poverty Alleviation

China Coal Energy implemented and responded to the principle of the targeted poverty alleviation of the PRC by making use of its own advantages and combining poverty alleviation exploration and multi-party cooperation, in order to improve people's livelihood while promoting sustainable development. By aligning ourselves with the local government's poverty alleviation planning in terms of capital investment and resource integration, we jointly create an environment that facilitates poverty reduction.

For the 2016 targeted poverty alleviation work statistics and follow-up targeted poverty alleviation plan, please refer to the 2016 Annual

Report of China Coal Energy.

China Coal Energy Xinjiang Branch has commenced targeted poverty alleviation carefully. Xinjiang Branch actively raised funds and donated more than RMB200,000 to Ayi Bage Town, Awati County for the construction of a medium-sized livestock farm, which could help alleviate over 20 households from poverty; and spent over RMB20,000 in buying 10 sewing machines to support 12 Uygur women in poverty reduction. In Boer Bosong Village, Subutai Town, Nileke County, it kicked off a targeted poverty alleviation activity "One Household One Policy", contributed over RMB100,000 in delivering 88 ewes and 88 lambs for the targeted herdsmen and helped poverty-stricken households to run a naan shop. The supported poverty-stricken households all achieved the goal of poverty reduction.



### Case Study

#### The Working Group of China Coal Realised Hainipan · Sidike's Colourful Dream

Hainipan · Sidike is a pretty girl from the village where the working group of China Coal South Xinjiang works. Since childhood, she has had a special affection to Atlas Silk, the Uygur's unique clothing. She is in love with all kinds of Atlas products, from beautiful dresses, small patterned-hats to pretty bags.

Hainipan · Sidike's love for Atlas Silk gradually became a dream, "It'll be great if I can run an Atlas Silk tailor store myself. With Atlas Silk, I can make more girls beautiful and charming, creating more happiness and wonder!" However, living in a poverty-stricken village in South Xinjiang meant she did not have enough money or technical guidance, so she had to keep such a wonderful dream deeply inside.

Aware of her dream, the third village working group of China Coal managed to raise enough money from different parties to help Hainipan · Sidike realise the dream.

On June 17, 2016, the village working group of China Coal donated 10 sewing machines that were worth approximately RMB20,000 to the village where they worked, while collaborating with the village to run two Atlas Silk clothing design and sewing stores. With this platform, the working group reached out and invited Atlas Silk clothing design experts to teach villagers Atlas Silk design and sewing skills personally.

Today, her dream was realised, and the Atlas Silk clothing design store founded by Hainipan · Sidike and her sisters has become a well-known clothing design brand in Ayi Bage Town, Awati County. Every time Hainipan · Sidike met the working group members, she burst into excitement. She said, "Thank you the working group of China Coal for providing us with an employment platform and helping us thrive." Next, Hainipan · Sidike and her friends plan to further integrate Atlas Silk design and modern design, combining traditional and modern fashion to make the old Atlas Silk radiate new lustre.



The Village Working Group of China Coal Donating Sewing Machines



### Case Study

#### Pingshuo Group Carried out Targeted Poverty Alleviation in Youyu County, Shanxi Province

Antaibao Open Pit Mine of Pingshuo Group Company supported Nanbali Village, Weiyuan Town. Antaibao Open Pit Mine invested RMB100,000 to build a well, a supporting reservoir and pipeline project for Nanbali Village, solving the villagers' problem on drinking water.

Anjialing Open Pit Mine of Pingshuo Group Company supported Jiajiayao Village, Xincheng Town. Anjialing Open Pit Mine contributed RMB15,000 to help five poverty-stricken households raise sheep and bought five fine sheep for each household. Anjialing Open Pit Mine donated RMB45,000 to help and support four seriously ill villagers and gave each of them RMB5,000; Anjialing Open Pit Mine helped and supported the families of five undergraduate students with financial difficulties to continue their studies and donated each household RMB5,000.

East Open Pit Mine of Pingshuo Group Company supported Tieshanbao Village, Yangqianhe Town. Pingshuo East Open Pit Mine invested RMB108,000 to build a sheep pen of 30 to 40 square metres for 36 sheep-rearing households.

First Underground Mine of Pingshuo Group Company supported Mayinghe Village, Shahukou Tourism Area. First Underground Mine contributed RMB51,000 to finance 10 poverty-stricken students for the relief funds of three terms.

Second Underground Mine of Pingshuo Group Company supported Zhongniantou Village, Gaojiabao County. Second Underground Mine invested RMB100,000 to provide 100 black fat piglets for poverty-stricken households and the average annual income of each pig was RMB1,300 to RMB1,800.

## Developing the Social Benefit

### Participating in social rescue

China Coal Energy gives full play to the professional advantages of mine emergency rescue centre, makes efforts to improve its emergency rescue capacity and actively participates in local mine rescue, rescue and relief work. Thus, the Company plays an important role in guaranteeing life and property safety of the general public.

Since its inception, the fire control centre of China Coal Mengda Chemical Company has been undertaking social rescue duty by safeguarding the plants and surrounding community. In 2016, the fire control centre was selected as an "Advanced Unit in Fire Control of the Banner" by the People's Government of Wushenqi, Ordos City. During the whole year, the control centre joined 19 times of firefighting that required external reinforcement, involving 21 vehicles and 148 attendees, and successfully handled several fire incidents. The success rate of fire extinction was 100% and properties that were worth several million were saved.

### Supporting the social welfare

China Coal Energy actively participates in social benefit undertakings. With a donation management system in place, the Company selects public welfare projects following the principle of "willingness, clear

responsibilities, ability-based actions, creditability," and based on the company's annual business performance. China Coal Energy helps and supports the poverty-stricken people through donation of money and goods, and advocates cultural and sports undertakings, serving the society wholeheartedly. In 2016, China Coal Energy carried out public welfare activities within its capability and the donation made as well as poverty alleviation funds utilised amounted to RMB1,379,000, which was mainly used for poverty alleviation and supporting the cultural and sports undertakings where the key projects were located.



Charity Donation Activities in Shaanxi Company



## Providing volunteer service

China Coal Energy is concerned about public welfare. The Company supports and encourages employees to participate in various kinds of volunteer service activities. The Company often carries out some volunteer activities such as “Conveying True Love, Giving Warmth, Showing Love, One Helping One and Getting Partner” to send care and warmth to local households in difficulties, especially for the senior citizens and people in need, transferring positive energy to the society.



Social Welfare House Visited by Volunteers of Huajin Company

## Performance in Community Responsibilities

Name of Indicator	2014	2015	2016
Tax paid (RMB100 million)	104.02	61.5	<b>62.74</b>
Donation and poverty alleviation (RMB10 thousand)	198.84	127.34	<b>137.90</b>
Social contribution per share (RMB)	1.74	1.34	<b>1.71</b>





## 2017 Outlook

With the deepening of the supply-side structural reform and the gradual release of macro-control effects, a new set of economic dynamics is emerging sharply, as traditional industries speed up their transformation and upgrading. China's economy is expected to maintain medium-to-high-rate growth. Based on the trend currently taking place in the coal industry, coal industry fundamentals have not changed, among which the various policies relating to cutting overcapacity have remained the same. Prices of coal are expected to return to a reasonable range.

The year of 2017 is an important year for implementation of the "Thirteenth Five-Year Plan" as well as a significant year for intensification of the supply-side structural reform. We will stick to the general requirement of "quality improvement amid stability with reform and innovation", continue to promote the structural adjustment and improve the quality of development. The Company will focus on "cutting overcapacity, destocking, deleveraging, reducing costs, and remedying the weakness", vigorously improve quality and efficiency to increase its earnings level, deepen the reform, encourage innovations and entrepreneurship and inspire corporate vitality, as well as uphold the safe production and stable development of the enterprise.

**The Company will stabilise its production, improve sales and strive to improve its quality and efficiency.** We expect to maximise production efficiency by organising production in a scientific and reasonable manner and realising advanced capacity to ensure a stable expansion of coal production. The Company will enhance its marketing arrangement and strengthen coordination between production, transportation and marketing, while maintaining stable and high-level production, expanding total sales and enhancing its sales performance, which will ensure the achievement of annual production and sales targets and attainment of distinctive result.

**The Company will strengthen safety standards with a comprehensive approach.** The Company will further implement the measures that comply with the Opinions on Promoting the Reform and Development in Safe Production by the Central Committee of the Communist Party of China and the State Council in order to firmly establish a "red line" perception and "bottom line" mind-set as to safety, thus enhancing the concept of safe development and pursuing sound accountability for safe production. We will highlight key control areas and underline the prevention and handling of major incidences. We will strengthen field management to eradicate major accidents, minimise minor casualty accidents and pursue "zero mortality", so as to ensure sustainable safe production for the Company.

**The Company will protect the environment and promote green development.** In order to speed up industrial structural adjustment and proceed with transformation and upgrading, the Company has accelerated the construction of coal-fired power generation and coal chemical projects these years, and has been promoting efficient utilisation of clean coal, which will inevitably increase energy consumption as well as total emissions

substantially. We will further strengthen our environmental protection work and put into practice the concept of "green development" by improving environmental protection procedures of projects under construction and paying special attention to the construction, operation and maintenance of environmental protection facilities. We will ensure that our operations meet the discharge and emission standard, and strive to build a "resource-conserving and environment-friendly" enterprise.

**The Company will pursue growth through innovation.** Building on the efforts to save cost, raise efficiency, and ensure safe production and business transition, the Company will put more emphasis on technology research, continue to seek cost-saving through the use of technology, move on with the Three-Year Action Plan to optimise coal mining technology, strengthen to upgrade coal mining technology and the equipment, and promote cost-saving through the use of technology. We will step up efforts to work out technology-based solutions and related applications, carry out key research projects including deep-pit safe mining, and apply the results for lifting productivity in the shortest possible time. The Company will speed up its technical innovation progress in coal chemicals and electricity. New technologies and new products will also be emphatically promoted. Besides, the Company will deepen entrepreneurship and innovation activities to realise business innovation.

**The Company will embrace the people-oriented principle and safeguard employee's legitimate rights and interests.** Sticking to the philosophy of "harmony", China Coal Energy has built harmonious labour relations, safeguard the rights and interests of its employees and improve their life and working environment. The Company will continue to focus on improving its employees' livelihood, ensure on-time wage payment, pay insurance premiums according to regulations, and carry out charitable and relief activities to help out distressed employees. The Company will expend effort to provide quality training to its employees, improve the present training system and promote career advancement of all staff.

**The Company will contribute to the society and strive for a win-win situation.** The Company will adhere to the notion that the one who benefits is liable to pay back to society. While seeking our own growth, we should support the economic and social development in locality, so that a harmonious and win-win situation can be attained. The Company will continue to support public welfare causes, support targeted poverty alleviation and fulfil its corporate social responsibility in order to be a good corporate citizen.

In response to the deepening supply-side structural reform, China Coal Energy will be steadfast in fulfilling its corporate mission of "providing quality energy, leading the industry and creating a prosperous life". The Company will integrate the concept of corporate social responsibility and sustainable operation into its development strategy and daily operations, thus creating higher economic, social and environmental benefits. The Company will continue to enhance its ability to create overall economic, social and environmental value, seek quality improvement amid stability with reform and innovation, achieve harmonious development with its stakeholders, and strive to become a clean-energy supplier with solid competitive power in the international market.





中国中煤能源股份有限公司  
CHINA COAL ENERGY COMPANY LIMITED

中煤能源欢迎您对报告提出建议和意见

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