

中煤能源社会责任报告 CHINA COAL ENERGY CSR Report 2015



Description for the Preparation of the Report

Summary of the report

China Coal Energy CSR Report 2015 is the seventh 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 2015 and fully discloses the Company's philosophy of sustainable development, practices and results in performing its responsibilities on economy, safety, environment, innovation, employee and community.

Range of period

From 1 January 2015 to 31 December 2015. To increase the comparability of the report, certain content 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;

"ISO 26000: Guidance on social responsibility" of International Organisation for Standardization;

"Guidelines on Preparation of Corporate Social Responsibility Report for Corporations in China" (CASS-CSR3.0) 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 at the website of China Coal Energy Company Limited, http://www.chinacoalenergy.com

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Chairman's Statement



2015 was a very difficult year for Chinese coal industry. The loss scale of coal industry continued to expand due to the continuous significant drop in low coal prices resulting from the continuous slowdown in China's economic growth, and the serious imbalance between coal supply and demand. Confronted with the extremely serious production and operation pressure, China Coal Energy overcame various difficulties by taking a series of effective measures, made progress while maintaining stable, and ensured the safety and stability as well as the normal and orderly production and operation of the Company. 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 construction and so on.

Adapting to market changes and stabilizing the production and operation situation. China Coal Energy maintained the industry overall situation, advocated production reduction and limitation in coal industry, at the same time took initiative to cut down and reduce the production. In 2015 the production volume of commercial coal declined by 14.6% year-on-year, and the sales volume of commercial coal declined by 12.2% year-on-year, which made a positive contribution to resolve the overcapacity in coal industry. By adjusting the operation concepts and marketing strategies, strengthening the organisation of production, transportation and marketing to keep



abreast to the market, and focusing on cost reduction and efficiency improvement as well as income increase and expenditure reduction, China Coal Energy stabilized the production and operation situation and achieved operation performance which was better than the market decrease rate.

Adjusting the industrial structure and accelerating transformation and upgrade. China Coal Energy spared no efforts to accelerate the development of coal chemical industry, and coal chemical projects such as Yulin Olefin Project, Tuke Fertiliser Project and Yuanxing Methanol Project were successfully put into production and reached the designed capacities, achieving good economic benefits and becoming new profit driver of China Coal Energy. Meanwhile, China Coal Energy actively developed the power industry by accelerating the development of pit-mouth power stations and power plants under comprehensive utilization of inferior coal. So far, 4 power plant projects have been approved and are now under construction. The coal conversion scale of China Coal Energy was continuously expanded and the industrial structure was optimized, which further enhanced the capacity to resist market risks.

Paying great attention to safety supervision and improving the safety assurance ability. China Coal Energy always attaches great importance to production safety and continues to strengthen the implementation of various tasks, which facilitated the Company to achieve a stable and better safety situation and eliminate fatality accidents of production safety in 2015. The Company also emphasized safety highlights, paid great attention to safety control of coal mine and coal chemical sector, strengthened risk pre-control and potential hazard identification and treatment, and implemented dedicated prevention and control measures. Safety quality standardization construction was continuously promoted, which facilitated 6 coal mines to meet the national first level standard. Building a "Green China Coal Energy" and improving green development quality. China Coal Energy devoted to 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 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 paved the way for China Coal Energy to achieve assessment indicators of energy conservation and emission reduction.

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 on aspects of the key technology development and innovation capability construction, and to make new contribution to safety guarantee, cost decreasing and benefit increasing and core competitiveness enhancement. China Coal Energy further enhanced its capability of innovation because the Company won 22 awards for scientific and technological advancement above industry level and obtained 241 new licensing patents (1,177 patents in force in accumulation) in 2015.

Adhering to people-oriented principle and safeguarding employee's legitimate rights and interests. Sticking to the philosophy of "harmony", China Coal Energy built harmonious labour relations, strengthened occupational health protection to fully safeguard the employee's legitimate rights and interests. Faced with the serious situation where more than 90% enterprises in the coal industry incurred losses, some of which delayed or defaulted in wage payment, the Company enhanced the overall management of fund, gave priority to wage payment, deepened the reform of distribution system and promoted remuneration structure adjustment, thus enabling the Company to pay wages to all its employees without delay throughout the year of 2015.



Benefiting the society and people's livelihood and promoting the economic and social development. China Coal Energy insisted on all-win harmony and supported local social economy development. In 2015, the total amount of social contribution reached RMB16.519 billion, of which all kinds of taxes and fees amounted to RMB6.15 billion and accounted for more than 10% of the operation revenue. The Company also supported employees to carry out various forms of volunteer service activities, passing positive energy to the society.

The year of 2016 is the beginning of "Thirteenth Fiveyear Plan", also a crucial year for China Coal Energy to make up the deficit and shake off the dilemma. Focusing on the annual targets of production and operation and highlighting "cutting overcapacity, de-stocking, deleveraging, reducing cost and remedying the weakness", the Company will make efforts to mitigate the losses and strive for making up deficit through scientific organisation of production, enhancement of production and marketing cohesion, increase of market development, intensification of operation and management control and vigorous promotion of cost decreasing and benefit increasing. Meanwhile, China Coal Energy will inject the gene of social accountability management into the whole process of corporate management, stimulate the potential and gather the efforts of interested parties to create social value, effectively manage the impact of its operation on the society and the environment, and give full play to create the economic, social and environmental comprehensive values of enterprise development.

Responsibility leads the future and communication creates value. We would like to further strengthen the open communication and sincere cooperation with colleagues at home and abroad through this report, and to win a better future together.

Li Yanjiang 22 March 2016

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 core 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 and Hujierte, Ordos of Inner Mongolia, 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, is of high quality with low sulphur and extra low phosphorus content. The major coal production bases of the Company are equipped with easily accessible transportation channels which are connected with 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



Safety, Health and

Environmental Protection Committee

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Corporate Culture



China Coal Energy's logo consists of two letter "Cs" which denote "CHINA" and "COAL" respectively. The two "Cs" form the Chinese character "+", 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 dignifiedness 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 industrial advantages, increase productivity, promote clean conversion and utilisation of coal; supply quality, abundant energy; and 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 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 downto-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 winwin 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 society.

Strategies of the Company

Under the new normal of national economic and energy development, upon a comprehensive summary on the "Twelfth Five-Year Plan" and looking ahead, the Company has defined its strategic vision as well as the development strategies and goals for the "Thirteenth Five-Year Plan":

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 utilization and a provider of quality services, and to maximize the interests of enterprise and the employees, the Shareholders and the society.

The Development ideas for the "Thirteenth Five-Year Plan": According to requirements for provider of clean energy of being market-oriented and focusing on optimizing efficiency, the Company will strive to establish a new circular economic business line for coal, power and chemical. The Company will also strive to build a new regional layout of "full function, customized 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, transforming and upgrading, reforming and adjusting, as well as consolidating 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 to enhance the coal production efficiency and to increase the onsite transforming ratio of coal and to highlight the large 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 realize the transformation from speed and scaleoriented 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 realize 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 environmentalfriendly 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 coalelectricity 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 indepth 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 localization of leading technology and equipment and the internalization 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, transformations and upgrades, to make the regional layout more harmonized, the industrial synergetic effects more remarkable, the results arising from service transformation outstanding, the corporate management more scientific and reasonable, the Company will further improve the comprehensive economic power, the sustainable innovation development capability and the innovation initiatives of the employees; and to lay down 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, intercoordination and check-and-balance among the organs of power, decision-making bodies, supervisory bodies and the management. The Company has formulated various rules and systems, such as the Articles of Association, Rules and Procedures for General Meetings and Rules and Procedures for Board Meetings. In 2015, 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 places where the Company is listed, which further improved the corporate governance system.

Standardized 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



Board meeting of China Coal Energy

supervision and coordinated operation is in place among the Board, General Meeting, Supervisory Committee and the management. The Company's major business matters are required to be 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 specialized committees are established, namely audit committee, remuneration committee, strategic planning committee, safety, health and environmental protection committee and nomination committee. Full play is given to the role of the specialized committees so that major decisions will be discussed first by the specialized 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 timely and fully express their views. In 2015, China Coal Energy organised and convened two General Meetings, seven 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 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-abidingness and a market entity with fair competition, strictly observed national laws and regulations and government regulatory requirements and maintain the credibility of the Company. A Plan for Managing According to the Law and Operating in Compliance with Regulations was formulated to set up specialized measures from four aspects, including establishing the standards for legal risk management, enhancing the Company's compliance management, promoting legal management system in depth 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 with 80% full-time general legal counsels, thus ensuring the corporate operations in compliance with the applicable regulations.

Internal Control

Internal control system. Based on system construction, the Company managed to continuously improve the standardisation, intensification, specialization, elaboration and informatisation of management and enhance the efficiency of the operational management and capacity of risk prevention. In 2015, 461 regulations of the headquarters in effect were straightened, 51 regulations were amended, 481 workflows of the headquarters were regulated and completed. Through continuously exploring the management-control mode of each business sector and regional company and conducting discrepant management over different business sectors, the Company 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 timely reported and resolved the issues in budget implementation by conducting monthly operations analysis and the specialized analysis on cost control, product profitability, cash flow management, loss reduction and turnaround and infrastructure investment, strengthened the assessment of budget execution, and effectively facilitated and regulated the budget implementation by means of salary and performance.

Risk management. Focusing on "target, risk and control", the Company adopted the approach of "centralized 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 2015, 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 realized the win-win development with the supply chain partners. The Company continuously improved the supplier management system through promoting the establishment of company's unified administration and graded responsibility system for the full life circle of suppliers, such as admission, authentication, and performance appraisal and exit. 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 service, and facilitated the awareness and capacity of suppliers in fulfilling responsibilities. In 2015, the centralized procurement of the headquarters of the Company amounted to RMB11.2 billion. The level of centralized purchasing management was above 90%. The purchasing cost was reduced by 8% in total. No supplier complained all year around.

Anti-corruption

Anti-corruption construction. As anti-corruption was an integral part of its business management, the Company focused on supervision, implementation and accountability to comprehensively reinforce responsibilities and duties, regulate occupational behaviours and use of authority, thus creating a clean and sound corporate environment. Constantly promoting anti-corruption education, the Company held specialized lectures on anti-corruption and organised staff to visit the anti-corruption education bases so as to cultivate the culture of anti-corruption. The Company worked harder on investigating in cases of breaching the rules and discipline. In 2015, the Company carried out special inspection on management and use of controllable expense and purchase of non-production vehicles, and investigated and punished in time when problem came out. The Company kept strengthening the work-style building. In line with the serious situation response, cost decreasing and benefit increasing promotion, the Company realized the year-on-year decrease of conference expense, entertainment expense, travel expense and administrative expense. Consequently not only the management expense was decreased but also the workstyle was changed.

Supervision through auditing. To carry forward supervision through auditing, the Company insisted on "termination audit and construction project audit" and facilitated the regulation of decision-making procedures, and the prevention of operational risks. The establishment of Inner Mongolia-Shaanxi Auditing Centre changed the splitting situation and weak auditing capacity of enterprises in Inner Mongolia-Shaanxi Bases, thus enabled centralized and integrated management and advance

supervision of auditing resource. The Company carried out in-depth performance monitoring and pushed forward the implementation of performance monitoring projects of its subsidiaries, adopted methods such as quarterly statements and on-site inspection with a particular focus on centralized procurement of materials and construction project management.

Openness and transparency. 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 medias such as company website, CSR report and annual report. The Company set up press spokesman system to answer the question raised by media and investors, thus built 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. Proactively 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.



China Coal Energy's "Three Initiatives" Model of Social Responsibilities Management



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 forum, 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 co-operation, 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 customized 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	Repayment of principal and interests in a timely manner
Media	Information transparency	Publication of reports, Multichannel information disclosure	Regular disclosure of information on social responsibilities and significant events of public concerns
Community and the public	Community activities, Environment protection	Charity donations, Voluntary services, Community development	Disaster relief, Help for the poor and the needed, Environment protection



Identification of Topic on Social Responsibility



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 column for studying 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 2015, the Company held the work meeting of social responsibility so as to listen to each work unit's report of social responsibility work in 2014 and arrange the major social responsibility tasks of 2015. 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, exploring the social responsibility concept, connotation, target and pathway of the coal enterprises in the downturn, the Company promoted its social responsibility to be implemented more effectively in the subsidiary companies. Participating in formulation of industry standards on social responsibility. China Coal Energy earnestly participated in the standards establishment of social responsibility, and cooperated with the China National Coal Association to prepare the "Guidelines on Social Responsibility of Coal Industry", which was officially released in 2015 and indicated that the Company played a leading role in preparing the industrial standards of social responsibility.



Social responsibility work meeting



Economic Responsibilities

Braving Difficulties, Making Progress, Ensuring Stability

- Scientifically Organising Coal Production and Marketing
- Improving Customer Services
- Thoroughly Lowering Cost and Improving Efficiency
- Accelerating Transformation and Upgrade
- Performance in Economic Responsibilities



2015 was a very difficult year for Chinese coal industry. Energy prices including oil and coal prices tumbled amidst a complicated international economic situation. Coal price continued to fall amidst a continued sluggish Chinese economy growth and severe imbalance between the demand and supply of coal. The Bohai-Rim Steam-Coal Price Index continued to fall by more than RMB150/tonne to RMB370/tonne as compared with the beginning of 2015, representing a decrease of 30%. In 2015, revenue and profits of national scale coal enterprises from principal businesses decreased by 14.6% and 61.2%, respectively as compared with 2014. The pace of decline increased by 16.8% as compared with 2014 and over 90% enterprises in the industry suffered loss in 2015.



"Now, it is a key period for enterprises to improve management, carry out transformation and upgrade, and adjust structure. The more pressures we face, the more clearly we shall understand the situation, unify our thinking, and enhance confidence. Structure adjustment is a process, and it is high time that we should hold on, so we hope China Coal can withstand pressure like hydraulic roof support"

- Wang Yong, State Councilor

Scientifically Organising Coal Production and Marketing

Actively reducing coal production

Based on the serious analysis of national macro-economy and situation of coal industry, China Coal Energy adapted to the changing situation, and actively suppressed and reduced production while advocating to reduce and limit production in coal industry. In 2015, production volume of commercial coal was 95.47 million tonnes, representing a year-on-year decrease of 14.6%, while sales volume of commercial coal was 137.72 million tonnes, representing a year-on-year decrease of 12.2%, making positive contribution to the alleviation of overcapacity in coal industry.

Scientifically organising coal production

China Coal Energy overcame multiple challenges including complex geological conditions of coal mines, difficult production organisation, and intensified market competition, and continued to optimise mining technology and simplify production system, thus further improving production efficiency. In 2015, the unit output, unit roadheading and raw coal work efficiency of the Company increased by 6.7%, 6.9% and 3.9%, respectively, as compared with 2014. Adhering to organising production to maximise efficiency, the Company fully released the capacity of coal mines including Pingshuo East Open Pit Mine and Wangjialing Coal Mine of good quality and marketability, shut down 6 coal mines without marginal contribution, reducing production volume of 7 coal mines of poor quality, so as to enhance coal quality management and assessment, strengthen coal blending and product reproduction, optimise structure, improve quality, and enhance efficiency.

Fully expanding coal market

In 2015, positively coping with market downward pressure, China Coal Energy made positive progresses in marketing system building, price decision system optimisation, achieved new breakthroughs in new market development, new channel expansion, and new mode application, and accumulated valuable experience in exploring new cooperation mode and implementing new promotion policy of "one client one policy". Facing difficulties, we thought boldly, tried hard, and pushed forward; we resisted the market pressure, turned the passive situation, and ensured the basic balance between production and sales, thus making positive contribution to stable operation, cost reduction and efficiency improvement of the Company. In terms of optimisation of the market layout, the Company consolidated the market share of traditional markets in East China and South China while expanding new markets in Central China and Southwest China. In terms of improving price system, we initially established a price system applicable to the characteristics of Pingshuo coal while achieving a lower decease of the comprehensive price of self-produced coal than that of BSPI and comparable coal enterprises. Through the improvement of logistics management and proper adjustment of resource flow, the Company reduced the port storage charge RMB188 million in total during 2015, and lowered coal cost per tonne by RMB2.97. Through innovative marketing mode, the CIF delivery volume and e-commerce volume increased by 70% and 220% respectively. By building a centralized marketing system of coking coal and improving the pricing mechanism of coking coal, China Coal Huajin Company continued to expand its market coverage of coking coal and the outbound transportation sales increased by 57 percentage points. With the concentration of coal sales and coal supply for coal chemical industry, the regional industrial synergy in Inner Mongolia-Shaanxi regions was enhanced.



Open Pit Mine Production



Case Study

Pingshuo Group Improved Coal Quality and Promoted Sales

In 2015, adhering to the principle of profit maximisation, Pingshuo Group scientifically organised production, strengthened coal quality control, and maintained a smooth connection among production, transport and sales. In 2015, the outbound transportation of commercial coal was 66.45 million tonnes, including 37.86 million tonnes of premium coal. The indexes including the comprehensive recovery rate and premium coal proportion achieved their best performance over years.

The coal quality management of Pingshuo Group was improved due to the establishment and improvement of its management system. In 2015, Pingshuo Group established coal quality leading group under the leadership of General Manager. Each coal mine, coal preparation centre, and coal quality transportation and sales centre was required to establish a coal quality management group to extend the coal quality management to each working team, in which a person in charge of coal quality was designated to implement all measures of coal quality management. The establishment of coal quality management group connected all stages including washing and preparation in mining area, transportation and distribution of coal and sales. which changed the situation of incomplete information communication and delayed feedback about "production, transportation and sales". The coal guality transportation and sales centre strengthened the communication, coordination and daily business connection with the sales companies and the port companies, so as to obtain the information about changes in prices and marketing policy of commercial coals in time, and ensured that the production organisation could respond to the market change rapidly, thus further coordinating the production and coal preparation, adjusting the process systems in a timely manner, and being well prepared for storage, transportation and loading. The coal quality transportation and sales centre detailed the production and marketing connection to the type of coal, direction of flow, client, time and place, solving all problems arising from the linkage between production and sales, and realising the goal of "guality improvement, sales promotion and efficiency enhancement".

Improving Customer Services

Coal sales: satisfying the differentiated demands of client

Innovating coal marketing mode. The e-commerce platform of China Coal Energy met clients' demand of online trading, product customisation, online inquiry, supply chain financial services, and third party logistics services, reduced the supply cost, and enhanced the capabilities of rapid response and value-added services. In 2015, the online trading volume reached 17.79 million tonnes, with a total transaction volume of RMB7.841 billion.

Ensuring coal supply efficiency. Through cooperating with main clients, railway and harbour-shipping enterprises on "quasi-Liner" and "quasi-Train", the Company adopted the operating mode of fixed supplier, docking port (station), ship (railway wagon), sail schedule (train schedule), shipping line, load volume, and receiver, so as to strengthen the effective connection among various stages from coal, electricity to transportation. All above efforts provided more stability and continuity in time, place, product type structure and direction of flow for coal supply, and ensured the efficiency and stability of coal supply.



Outbound transportation of coal

Optimising product quality control. The Company executed the management of shipping plan, whole-process quality tracing and comparative analysis on the quality at the loading and discharging ports, and improved the coal blending quality at source, the loading port and the discharging port, better controlling the quality indexes of calorific value, ash content and sulphur content, so as to meet the requirements for coal quality of different clients in different areas.



China Coal Energy has accelerated the construction of coal chemical industry base and made significant progress in recent years. Coal chemical enterprises located in Inner Mongolia-Shaanxi bases have been gradually put into operation, and their product sales have begun to take shape. Implementing centralised marketing management of coal chemical products sales can give full play to the overall advantages of the Company and brand effect, integrate distributed resources for effective use, reduce the repetition and waste, improve efficiency of resource use, and further improve the market competitiveness of coal chemical products so as to achieve scale merit. In April 2015, the Company established the sales centre of coal chemical products focusing on centralised marketing management of the main products, established the basic sales management system of coal chemical products, related work processes and distribution of powers, and set up the operating mechanism mainly focusing on plan, price, customer,

contract, logistics, warehouse management and after-sales service, statistical analysis and business cooperation.

Sales of coal mining equipment: accelerating service transformation based on the client need

Facing the grim situation of sharp drop of main equipment orders, China Coal Equipment Company accelerated service transformation and expanded machine accessories and maintenance business. Price of accessories and maintenance contracts signed in 2015 amounted to RMB1,245 million. China Coal Zhangjiakou Coal Mine Machinery Company made a big leap than that of 2014 in product maintenance and re-manufacturing business on the basis of strengthening accessories sales. Based on specialised service project in Shendong mining area, China Coal Beijing Coal Mining Machinery Company actively undertook mining machinery overhaul and accessories maintenance business in multiple mining areas, and the service business accounted for 19% of the total output, reaching a record high.



Case Study

Sales Centre of Coal Chemical Products Spared no Effort to Expand the Market

The sales centre of coal chemical products was founded at the time when the international crude oil prices fell sharply, resulting in sharp drop of chemical products prices and market downturn at home and abroad. Facing the grim situation, the sales centre of coal chemical products made every endeavour and took various active measures to expand sales business.

The sales centre organised and held key customer forums to study and determine market situation, listened to the advice of customers for sales, and made targeted sales promotion measures. It implemented the sales strategy of "export-oriented, supported by the Northeast market and supplemented by the local market" for large granular urea, strengthened export sales in accordance with the principle of "giving priority to shipping schedule, price and customers with long term cooperation", and initiated negotiations with big customers for long term cooperation mechanisms so as to stabilize the big customer group. Adhering to the "market-oriented" concept, it set up a linkage mechanism to change product grades with the market switching. Whereas the price of L5E89 polypropylene dropped sharply and was close to the cost line, it coordinated with China Coal Shaanxi Company to produce V30G polypropylene with higher sales price and created better economic benefits with the average selling price increased by RMB57/tonne.

In 2015, the sales centre of coal chemical products repriced urea product for 29 times and polypropylene and polyethylene products for 85 times according to the market changes, and signed a total of 1,567 sales contracts and orders, achieving sales revenue of RMB2.28 billion.

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Thoroughly Lowering Cost and Improving Efficiency

In 2015, the maximum fall of coal prices approached approximate 30%. The sharp fall of the coal chemical products prices, high coal inventory and difficult coordination of production and sales aggravated the operating pressure. Facing the grim situation, the Company held an on-site meeting in early April aiming at lowering cost and improving efficiency, and took decisive measures to lower cost and improve efficiency in a deep-going way, obtaining significant results. Pingshuo Group arranged mine production in a reasonable way, improved the management of outsourcing business, and took various measures at the same time, reducing a total loss of RMB760 million. Shanghai Energy Company deepened the refined management, promoted the institutional reform, and strengthened the practice of repairing the obsolete and utilizing the waste, and enterprise closing, suspension, merger and transformation, reducing the cost and developing potential benefit of RMB600 million. China Coal Huajin Company continued to give full play to its mines with high yield and high efficiency, and fully released the mine production capacity, reducing unit cost by 18%. China Coal Shaanxi Company and China Coal Ordos Energy Chemical Company strengthened the equipment maintenance, improved the equipment load and conversion efficiency and reinforced purchase management, reducing cost

Accelerating Transformation and Upgrade

Coal industry: Adhering to scale and intensive management, the Company accelerated the construction of 5 ten-milliontonne large modern mines in Inner Mongolia-Shaanxi bases, thus strengthening the core status of the coal industry. The first working face of Hulusu Mine proceeded into trial operation, and hoisting system of main shaft of Menkeqing Mine also commenced its installation.

Coal chemical industry: With importance attached to developing coal-to-olefin and large coal-to-urea industries, and optimised development of coking industry, the coal conversion scale continued to expand. In 2015, coal chemical projects including Yulin Olefin, Tuke Fertiliser, Yuanxing Methanol, were put into operation smoothly and achieved the design capacity. Total profits of the three coal chemical enterprises reached RMB1.5 billion, which became a new profit growth point of the Company. and increasing benefit of over RMB700 million. All companies made full use of advantages of centralised sales and purchase, and strengthened sales and purchase coordination, tendering and public purchase, reducing purchase costs by more than 8%. The Company strengthened the centralised management of funds, arranged the use of funds, and gave full play to the financial service functions of China Coal Finance Co., Ltd., reducing financing costs by RMB300 million. In 2015, under the circumstance of decreasing the profits by RMB8.6 billion due to coal prices falling, production restriction and reduction and other factors, the Company exploited potential so as to increase profits of more than RMB6 billion through joint efforts, effectively alleviating the increasing loss momentum of coal operations.



Repair and recycling

Electricity industry: The Company actively pushed forward coal and electricity integration by taking such measures as new construction and equity participation. A number of electric power projects have been approved and are under rapid construction, including Shanxi Pingshuo 2×660MW Low Calorific Value Coal Power plant, Antaibao 2×350MW Low Calorific Value Coal Power plant (first phase), Jiangsu Datun 2×350MW Power plant under the "building large-scale ones and decommissioning small-scale ones" initiative, 2×660MW Second Power plant located in the north of Wucai Bay, Zhundong, Xinjiang. Installed power capacity will be increased by 4,040MW, and annual coal consumption will be above 12 million tonnes, laying a solid foundation for China Coal Energy in developing electric power business.

Coal mining equipment industry: to keep abreast of the clients demand, the Company improved the innovation



capacity, optimised the product structure, focused on consolidating the leading product markets, and vigorously developed overseas, non-coal and service businesses, reaching a total of RMB6.287 billion for sales contracts signed throughout the year of 2015. The Company successfully developed Indonesian underground mining equipment market, and the complete sets of equipment for India Jhanjra EPC Project were successfully exported, setting a new record of complete sets of underground mining equipment exported from China to India both in scale and in value.



Case Study

China Coal Energy Developed Coal Chemical Industry to Promote Transformation and Upgrade

In recent years, China Coal Energy has seriously implemented the national requirements regarding the standard and orderly development of coal chemical industry. Adhering to the development pattern of "scientific layout, reasonable structure, industrial concentration and advanced technology", the Company actively developed coal chemical industry, promoted technology innovation, accelerated project construction, strengthened operation and management, achieving obvious results and providing strong support for transformation and upgrade of the Company.

Firstly, the Company demonstrated the efficiency. The Company's design scale of fertiliser, methanol and olefin projects led the world. The labours in coal chemical projects were strictly controlled. Only 800 personnel quota was granted for Tuke Fertiliser Phase I Project, and less than 1,000 personnel quota was granted for Yulin Olefin Project. The overall labour productivity was several times of that of the traditional enterprises.

Secondly, the Company possessed the leading technology. All technologies selected for coal chemical projects of the Company were the most mature and advanced in the world. Key and proprietary equipment were purchased globally, and advanced technology and equipment provided the basis and conditions for "safe, steady, long-term, satisfactory and excellent" project operation. Thirdly, the Company promoted the comprehensive utilisation of resources. By developing coal chemical projects at pitheads, the Company arranged upstream and downstream resource advantages, and established the circular economy of integration of coal, electricity and chemical production, thereby minimizing costs and improving efficiency of comprehensive utilisation of resources.

Fourthly, the Company adhered to the principle of the integrated innovation. Tuke Fertiliser Project kept making innovation based on traditional product. The advanced BGL gasification technology was adopted, so that oil and gas components were extracted at the same time of syngas production, and by-products with high added-value were produced, improving the competitiveness of the whole project.



Modern coal chemical industry

Performance in Economic Responsibilities

Name of Indicator	2013	2014	2015
Production volume of commercial coal (10 thousand tonnes)	11,714	11,184	9,547
Sales volume of commercial coal (10 thousand tonnes)	16,101	15,689	13,772
Production volume of coke (10 thousand tonnes)	191	194.4	195.7
Production volume of polyethylene (10 thousand tonnes)	☆	9.7	35.3
Production volume of polypropylene (10 thousand tonnes)	\$	7.7	33.0
Production volume of urea (10 thousand tonnes)	16.2	105.6	196.3
Production volume of methanol (10 thousand tonnes)	12.4	57.7	78.6
Production value of coal mining equipment (RMB100 million)	64.8	55.6	43.1
Total Assets (RMB100 million)	2,149.43	2,427.06	2,569.80
Net assets attributable to equity holders of the listed company (RMB100 million)	874.27	867.18	834.84
Revenue (RMB100 million)	823.16	706.64	592.71
Total profit (RMB100 million)	60.22	15.21	-25.25

Notes: 1. $\Rightarrow: N/A$ for the period.

2. The Company is concurrently responsible for the sales of all methanol products produced by Heilongjiang Coal Chemical Group, a subsidiary of China Coal Group.

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Safety Responsibilities

Safety is of Vital Importance, Life is the Most Valuable

- Implementing Safe Production Responsibility
- Creating a Safe Production Environment
- Improving Safety Guarantee Capability
- Enhancing Staff's Safety Awareness
- Performance in Safety Responsibilities





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 continued 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 strictly supervises the production. In the continuously stable safe production situation, China Coal Energy avoided the occurrence of fatal accidents in safety production in 2015.



"Under the current greater pressure of downward economy, and circumstances of operating difficulties for enterprises, it is necessary to attach more importance to safety work and strengthen safety management, without any relaxation in standards and requirements, thus providing safety guarantee for the Company's reform and development."

- Li Yanjiang, Chairman of China Coal Energy

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 many occasions, as well as meetings to promote safe production of coal chemical enterprises, 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 downward coal industry 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 management system

The Company comprehensively implemented the new Work Safety Law, and adhered to the principle of "the party and government share same responsibilities, one post holds two responsibilities and call to account for dereliction of duty". All units sorted out and revised 12,700 posts of safe production responsibility in total, and 3,047 safety management systems, and checked and inspected the implementation periodically.

Implementing safety accountability level by level

Safe production responsibility undertakings were entered into at various levels so as to help implement safety accountability across the Company. The Company set detailed tasks of the year which were assigned to each unit, each department and each person, and followed up and supervised their implementation periodically. Top and graded leadership systems were established across the Company so as to implement safety accountability specifically. Security, production and technical sectors at all levels were responsible for safety business through staying close to the grassroot level and front-line, thus strengthening on-site safety management during production.

Perfecting appraisal and incentive mechanism

The Company revised and perfected the Appraisal Standard of Preliminary Award on Safety Management Responsible Officer of Enterprises, so as to promote the depth and quality of safety management. 16 enterprise and 16 mines (plants) were appraised in accordance with the preliminary Award on Safety Management. Each unit carried out safety responsibility implementation assessment level by level, so as to comprehensively enhance the execution of safety work.



Case Study

Clear Reward and Punishment for Safety Appraisal of China Coal Ordos Energy Chemical Company

China Coal Ordos Energy Chemical Company seriously performed monthly special appraisal system so as to strengthen the safety management in each workshop. Evaluation criteria for 4 special items including safety quality standardisation, production technology, equipment management and 6S management were formulated separately. It carried out monthly rating and ranking, and implemented reward and punishment according to the results of the performance appraisal. The appraisal results were the important index for the annual advanced unit award. If a unit was continually ranked in the bottom for three consecutive months, the responsible officer of such unit would be interviewed. For example, in January 2015, 4 workshops were punished, with a fine of RMB33,190. 5 workshops were rewarded with an amount of RMB16,725 in total. By implementing the powerful evaluation with clear reward and punishment, the internal management of the workshop was strengthened and the behaviours of the staff were regulated, so that the safety in production and operation throughout 2015 were ensured.



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, analyzed various safety problems and implemented corrective measures so as to effectively prevent and eliminate all kinds of potential safety problems.

The Company established regularly briefing and supervisory mechanism to check and solve the hidden perils, disclosed the safety perils governance situation monthly, and publicly supervised and handled major hidden dangers. The responsible officer of each unit organised and participated in the formulation of work plan, and continued to carry out safety inspection activities. 34,000 hidden dangers were checked and solved throughout 2015, and more than 3,700 notices of hidden dangers rectification were issued.

In 2015, the Company carried out "one ventilation and three preventions" and special inspection for water prevention and control for two times for coal production enterprises and carried out leakage, explosion, fire and poisoning prevention and special inspection for coal chemical enterprises, and organised experts at home and abroad to have system security diagnosis for China Coal Shaanxi Chemical Company. For the holidays including the Spring Festival, Labor Festival and the special periods, 40 inspection groups were set up jointly by the Company and each unit to go down to the primary production construction sites for safety inspection. The Company has fought against "three violations" safety activities



Safety check

throughout 2015 for two consecutive years, vigorously creating a strong atmosphere of combating "three violations".

Creating a Safe Production Environment

Promoting the standardisation of safety and quality

China Coal Energy keeps putting safe 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 objective management. In early 2015, the Company issued safety quality standardisation plan with the plan completion status included in the assessment of the enterprise leader safety management. Each enterprise formulated specific implementation plan, decomposed and implemented the plan level by level according to the annual target plan.

Improving system standards. The Company created a management environment of "sound system, proper reward and punishment" and formed a standard on the basis of the effective approach. The Company revised and improved the safety quality standardisation management measures and coal mining equipment safety quality standardisation standards, carried out post performance, and raised the level of safety quality standardisation work.

Strict appraisal rating. The Company further strengthened the assessment of safety management and human behaviour standardisation, and urged the enterprises to raise refined management level and established a longterm working mechanism. In 2015, the assessment of safety quality standardisation were conducted on a total of 11 enterprises and 15 mines (plants), 6 of which achieved super safe quality standardisation and security-type company standard. 32 mines (factories) reached national first level standard, and 6 coal mines reached the standards for the national first level safety and quality standardised coal mine.





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Case Study

Shanghai Energy Company Expanded the Connotation of Safety Quality Standardisation

Shanghai Energy Company, by promoting refined and dustfree management, has expanded the connotation of safety quality standardisation. In recent years, Shanghai Energy Company has compiled Refined Management Standard, and the Company Dust-free Mine and Factory Evaluation Management Measures and Implementation Standard, covering 11 disciplines including mining, excavation, machinery, transportation, and ventilation, involving 71 specific contents including the pre-shift meeting, civilized production, wall charts and board, etc., proposing 41 specific requirements, regarding organisational management, dust determination and ash slag treatment, and setting out 197 implementation standards with respect to 8 aspects including the realisation of goal, system technology, site equipment and succession, which have fully implemented the refined and dust-free construction

requirements. Jiangsu Province Coal Mine Dust-free Construction Site Meeting was held at Shanghai Energy Company, to promote the achievements of standardisation of safety and quality to all coal mines in the province.



Safety and quality standardisation

Ensuring safety investment

China Coal Energy profoundly realizes that the more difficult the operation of an enterprise is, the more important the safe production is, therefore, the necessary safety investment should not be reduced, otherwise, safety deficiency will be easily caused 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 renovate and transform the key facilities. In 2015, under the circumstances of operation difficulty and financial constraint, China Coal Energy still made safety investment up to RMB1,639 million in total, finished 231 key system reconstruction projects in total, such as "one ventilation and three preventions", electrical and mechanical transportation, power supply lines, thereby establishing a basis for creating a safe production environment.

Improving Safety Guarantee Capability

Strengthening safety risk pre-control

China Coal Energy has established a risk pre-control management system which takes risk pre-control management as a core, unsafe behaviour of controller as an emphasis, the operation of cutting off causal link of accident happening as a manner and continuous improvement as a running mode. By organising the enterprise to compile a safety risk report at the beginning of 2015, China Coal Energy systemically sorted out 969 safety risks and determined 5 high safety risks which should be supervised by the Company. Under the personal organisation of all-level principal leaders and the leading of sub-principals, the check for hidden dangers were carried out at regular intervals according to the tables, so as to mark and settle the high safety risks and major hidden dangers of the enterprise under supervision. Specific to the safety risks during the Xiaohuigou coal uncovering period, Pingshuo Group repeatedly organised relevant coal mining technicians to go to the site for researching and making technical schemes and construction measurements, thereby ensuring the safety construction.

Strengthening the management of emergency rescue

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 normalized 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 has formulated the Administrative Measures on Responding to Emergencies and prepared the emergency plan for coal

chemical industry, so as to further regulate the emergency management operation. The Company has also organised the enterprises to perform emergency resource surveying, so as to investigate the emergency material reserves and to set up an account for emergency supplies. In 2015, all the units organised 251 emergency drills with more than 15,000 participators



China Coal Shaanxi Company Enhanced Emergency Rescue Capability

China Coal Shaanxi Company always attaches great importance to the establishment of emergency management system and the improvement of emergency rescue capability.

Improving the emergency management organisation. The company established emergency rescue command centre comprising emergency rescue command centre office, emergency rescue command centre duty room and 12 professional emergency rescue and handling expert groups.

Establishing the emergency platform system. The company started the construction of the platform for the intelligent emergency rescue command system. After the construction is completed, it will be a demonstrative leading project at the aspect of emergency rescue command guarantee in domestic chemical industry and can wholly promote the emergency settling level and emergency responding capacity.

Carrying out emergency drill positively. In 2015, a total of 320 emergency drills in various forms were carried out with over 8,000 participators. With those emergency drills, the emergency reaction and self-protecting capacity of the staff were both promoted. Besides, the company undertook "comprehensive emergency rescuing drill for dangerous chemical leakage detonation accident" in Yulin city, which attracted more than 500 people from local government and related enterprises.



A rescue drill for emergency



Enhancing Staff's Safety Awareness

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.

China Coal Energy has invited the relevant experts from State Administration of Work Safety to respectively hold new Work Safety Law publicizing activities in China Coal Shaanxi Company, China Coal Ordos Branch, China Coal Mengda Company and China Coal Ordos Energy Chemical Company, thereby further building a prominent" caring for life and safety" atmosphere and enhancing the safety awareness of the staff. In 2015, all the units held various safety trainings in which the person-time of the participators reaching over 110,000 attendees in total, wherein the person-time of the trained staff on key positions reached over 21,000 attendees, the person-time of the trained team leaders reached over 27,000 attendees, and the safety awareness of the staff was enhanced.

Strengthening the construction of safety culture

China Coal Energy has actively built a safety culture atmosphere, firmly carried out activities for implementing safety concept of "Safety is of Vital Importance, Life is the Most Valuable", spared no efforts to build a safety culture with China Coal characteristics and promoted the shift of the staff's thought from "keeping me safe" to "I want to be safe".

Leveraging the fifth "March Safety Warnings", the thirteenth "Production Safety Month", "100-day Safety" and mass safety activities, the Company has energetically carried forward the advanced safety concept, reinforced the safety culture promotion and built a strong safety atmosphere,.



Warning education session on safety

Performance in Safety Responsibilities

Safety Investment in 2013-2015			
Name of Indicator	2013	2014	2015
Safe Production Expenditure (RMB100 million)	18.8	17.2	16.39

Fatality rate of raw coal production per million tonnes in 2011-2015

Category	2011	2012	2013	2014	2015
National Coal Mines	0.564	0.374	0.293	0.257	0.162
China Coal Energy	0.08	0	0	0.013	0



Environmental Responsibilities

Building a Green China Coal Energy with Low-carbon Development

- "Green China Coal Energy" System
- Promoting Energy Conservation and Consumption Reduction
- Carrying Out of "Three Wastes" Treatment
- Developing Circular Economy
- Constructing Ecological Mining Areas
- Performance in Environmental Responsibilities





Always adhering to the development concept of "building a green China Coal Energy to sustain the ecological balance in nature", China Coal Energy sets its long-term development strategy as "creating a resource-conserving and environmental-friendly" enterprise, and insists on "Green, Recycling and Low-carbon" green practices during development. On the way to explore the construction of ecological civilization, China Coal Energy strengthens environmental management, promotes energy conservation and consumption reduction, develops circular economy, endeavours to construct ecological mining areas, and to achieve synergetic development of resource development and ecological environment.



In recent years, China Coal Pingshuo Group has been continuously extending its industrial chain, vigorously developing coal power industry and promoting circular economy. Remarkable achievements have been made in aspects such as generating power by low calorific value coal and mining ecological construction.

– Li Haiyuan Vice Secretary of Municipal Party Committee and Mayor of Shuozhou City

"Green China Coal Energy" System

China Coal Energy insists on carrying out the policies of green development, energy conservation and environmental protection from a strategic and global level, promoting assimilation of the concepts of green development and ecological civilization into various stages of corporate production and operation, establishing and improving the "Green China Coal Energy" management system with its own characteristics, promoting green ecological civilization construction to realize scientific and systematic management.

Strategic Management System

The Company has successively formulated "Green Development Outline", "'Thirteenth Five-year Plan for the Energy Conservation and Environmental Protection", and "Annual Implementation Scheme of Green China Coal Energy", establishing the "three-in-one" strategic management system of green development, which comprises of medium and long term strategy, five-year plan and annual plans.


Green Standard System

Adhering to the principle of "highlighting the focus, tackling easier parts before the difficult ones and implementing step by step", the Company has organised to compile four sets of green standards and evaluation systems covering two core businesses of coal preparation, and coal mining equipment manufacturing. The Company has published the green standards and evaluation system of coal mining equipment manufacturing for trial operation.





Business Management System

The Company strengthened the management system construction of energy conservation and environmental protection regarding the goal and responsibility, organisation and management, statistical monitoring as well as assessment of rewards and punishments. Evaluation targets, set by the State-owned Assets Supervision and Administration Commission of the State Council, were devolved annually to grassroot units and responsibility pledges were signed level by level. Four levels of organisation and management network, composing of headquarters, secondary enterprises, mines (factories) and sectors(workshops), were preliminarily formed, and the management organisations were established or designated, with full-time and part-time management staff. The information management system for energy conservation and environment protection was initially established, enabling the statistics and monitoring data to be reported to the superior levels by levels and to be connected in a timely manner. The Company also established basic management systems, responsibility system and assessment measures for

energy conservation and environmental protection, so as to implement responsibility and standardize assessment. The Company also strengthened the management of pollutant emissions and energy consumption measuring instruments, with the equipment rate of first and secondary energy measuring instruments in affiliated enterprises above 90%, and online monitoring devices installed as required for waste water, waste gas and other key sources of pollution.

All-involvement Participation System

In the Energy-saving Publicity Week and World Earth Day, the Company, through the network, micro blog, WeChat and other new media and photo exhibition, itinerant preachers and training mode, organised to popularize the common sense of energy conservation and environmental protection knowledge, improve employees' awareness and ability of saving energy and protecting environment, create atmosphere of energy conservation and environmental protection and put into practice from the start bit by bit, start from the little things around us, thus making contributions for families, corporations and society.



Case Study

China Coal and Coke Limited Strengthened Management of Environmental Protection Risks

China Coal and Coke Limited constantly improved the management system of energy conservation and environmental protection through formulating statistical reports on energy conservation and environment protection, establishing environment protection equipment parameters and operation records parameters, installing online monitoring system, so that the statistics were standardized and uniformed, comprehensive and authentic, accurate and timely and could fully reflect the status of the Company's energy conservation and environment protection. China Coal and Coke Limited strengthened the screening of the environmental protection risks, checked up on the risks from the source and prevented risks before they happened. Adhering to the principle of combining normal screening and abnormal screening, the Company conducted a comprehensive environmental protection risks screening each year, systematically sorted out the environmental protection risks during production, operation and projects construction, realizing systematic screening and full coverage screening.

Promoting Energy Conservation and Consumption Reduction

China Coal Energy actively promotes new technology and production process which are energy-efficient and consumption-reducing, eliminates backward energyintensive process and equipment, thus timely applying the advanced and mature energy-saving and emissionreducing technology to the practical production process and improving the effects of energy conservation and consumption reduction, so as to promote the cost decreasing and benefit increasing in production and create favourable environment benefits. In 2015, the Company invested more than RMB26 million on energy



conservation, implemented more than 20 energy-saving projects such as motor system energy conservation, energy system optimisation, residual heat and residual pressure utilization and so on, all of which achieved expected energy saving benefits.

In accordance with management standards and control procedures, Pingshuo Group carried out all requirements in daily management, and obtained the "Energy Management System Certification", which was approved by Certification and Accreditation Administration of People's Republic of China and issued by China Coal Association Certification Centre(Beijing), and enhanced the energy conservation management. In light of "Energy-saving Technology Directory (Coal and Power Sector)" formulated by China Coal Energy, enterprises such as Pingshuo Group and China Coal Huajin Company actively adopted contractual energy management system to implement energy-saving and efficiency-enhancing projects. The residual heat recovery of air compressor project of Shanxi China Coal Dongpo Coal

Industry Company decreased the boiler burning of standard coal by more than 2,000 tonnes a year, and decreased annual operational expense by RMB600,000.

Carrying Out "Three Wastes" Treatment

China Coal Energy insists on "resources recycling, waste reusing, comprehensive utilisation and environmental protection" policies to conduct graded utilisation of waste water, waste gas and solid wastes during the processes of coal production, coal chemical production and electricity generation so as to improve the treatment of the "three wastes". In 2015, the Company invested RMB79.31 million to implement 42 projects such as waste water treatment, the desulphurization and denitration transformation of flue gas, solid waste management and ecological construction projects to further upgrade environmental protection facilities and equipment level and further improve the regional environment quality.



Case Study

China Coal Ordos Energy Chemical Company Promoted Coal Chemical Industry to Save Energy and Reduce Consumption

Tail gas from liquid nitrogen washing is a kind of waste gas produced in chemical plant purification workshop process. Its chemical components are mainly nitrogen (N_2) , hydrogen (H_2) , carbon monoxide (CO), methane (CH_4) and trace oxygen (O₂). Its calorific value is about 1,100 Kal/ m³. China Coal Ordos Energy Chemical Company, during its trial commissioning phase, discharged tail gas from liquid nitrogen wash through torch burning, which was not economic and caused environmental pollution. When the trial commissioning phase completed, to realize the goal of energy conservation, consumption reduction and emission reduction, the Company renovated the technology of emissions as introducing the tail gas from liquid nitrogen washing into boiler for mixedly burning. This innovation can save 48,000 tonnes of coal a year, and save nearly RMB10 million.



Boiler technology transformation



Determined to implement the "Action Plan on Prevention and Control of Air Pollution", the Company strengthened the management of air pollution emission, launched centralized heat provision projects in mining and living areas, formulated plans for renovation of industrial boilers so that air pollutant emission could meet standards, implemented desulphurization and denitration renovation works for boilers of power plants, and ensured that all treatment facilities were under normal operation and pollutant emissions met the required standards.



Desulphurization and denitration renovation works of power plant

Case Study

Tuke Fertiliser Project Realized Zero Discharge of Waste Water

New type of coal chemical industry is hugely waterconsuming, so "Zero Discharge" is especially significant because it can help solve partial problems regarding water resources, does not pollute or damage local environment and ecology, and is one of the important factors evaluating whether the project can continue to operate.

Tuke Fertiliser Project is the extra large scale coal chemical project constructed in Ordos Tuke Industrial Park by China Coal Energy. The zero waste water discharge system of the factory is comprised of five main phases, ie., pretreatment of gasification waste water, biochemical treatment of organic waste water, grey water reuse, strong brine evaporation and concentration, strong brine crystallization. The strong brine evaporation device established and put into operation in November 2014, along with the evaporation pond, formed double insurances for strong brine treatment. This device continued to operate up to present, through which the rate of waste water reuse was up to 98%, the amount of raw water consumption was 29.7% lower than the designed, 7.302 million tonnes of fresh water was saved each year, and the pressure on local scarce water resources was remarkably relieved. Water consumption per tonne of urea was reduced to 3.8 tonnes, below the half average consumption of the

industry, practically realizing zero waste water discharge and green energy conservation. The Company was chosen as the benchmark corporation for environmental protection technology promotion by China Nitrogen Fertiliser Industry Association.

Presently, the Company is carrying out researches on crystallisation salt resource utilisation, planning to conduct separation and purification of 60% sodium chloride and 30% sodium sulfate from the salt, sell the finished products, recycle the waste and realize the green and environment protecting circular economy.



Waste water treatment



Developing circular economy is the important means to realize clean coal production, efficient utilization and transformation and upgrade. According to the principle of "industrial agglomeration, intensive resources, recycling utilization, environmental friendly", China Coal Energy actively promoted sectors and industrial bases to construct green, circular and low-carbon development model, and to realize sustainable development through resources recycling and integration of upstream and downstream industrial chains.

Pingshuo Mining Area endeavoured to build 100 million tonnes level green coal base, improved the industrial chain of coal mining, washing and preparation, power generation and coal chemical industry and the ecological industrial chain of agriculture, forestry, grassland farming and medicine with the use of land resources in reclaimed districts as the main theme, so as to constantly promote green and sustainable development.

Shanghai Energy Company further perfected the comprehensive utilisation system of waste resources, forming circular economy model with the theme of comprehensive utilization of coal, coal gangue, fly ash and mine water, realizing the reuse of the waste thoroughly.

Inner Mongolia-Shaanxi base put into practice the concept of green and low-carbon development by making effort to create "Green China Coal Energy" demonstration base, with clean exploitation of coal and ecological restoration as the core of development and in accordance with integration of coal and electricity and multi-generation circular economy model.

Adhering to the green concept throughout the whole life cycle of the coal machine products, China Coal Equipment Company strengthened the recycling of water and emulsion, established a green coal machine brand which was unique in low consumption, environment protection and high efficiency, and enhanced the competitiveness and reputation of the products.

Constructing Ecological Mining Areas

Green Mining

Green mining of underground mines: Supported by "shallow depth, hard roof and coal seam, fully mechanized top coal caving mining" technology, under lake coal mining technique and other internationally and domestically leading core techniques, the Company actively innovated mining methods such as using coal gangue to replace coal so as to reduce the subsidence, further increased the recovery rate of coal resources, with the recovery rate of most underground mines above 80% and the level of unit consumption of raw coal production taking the lead in the industry.

Green mining of open pit mines: The Company adopted combined open pit-underground mining to recycle the coal under waste dump and slope which were not suitable for open pit mining, so as to improve the recovery rate in mining, and to reduce coal mining ecological damage and negative effects on environment. The core technology of open pit mine continuity production of Pingshuo Company solved the technological difficulties of large scale open pit mines such as mining procedures and transportation system optimisation, reducing the transportation distance of trucks in Antaibao open pit mine by 0.48 kilometre in average, and saving 16,800 tonnes of standard coal per year.

Ecological Restoration in Mining Area

Under the condition of coal economic downturn, China Coal Energy followed the principle of "reasonable distribution, categorised management, situation-driven and harmony between local people and the enterprise" and adjusted measures suitable to local conditions, to insist on carrying out windbreak and sand-fixation, water conservation and land reclamation and greening etc., so as to realize the harmonious relationship between industry development and ecological protection.

Open pit mining of Pingshuo Group achieved the integrated treatment of "stripping-mining-backfilling-reclamation", so that the soil fertility, soil and water conservation, vegetation species of the previously deserted mining area all were increased than they were before the development. The coal and environment protection administration departments listed this project as the demonstration project.

Shanghai Energy Company adjusted measures to local conditions, made full use of coal gangue to backfill mining subsidence and the lake mud of Weishan Lake to cover the earth's surface, which increased the soil fertility, benefited the land for farming, and dredged the river on the Grand Canal. Up to the end of 2015, the reclaimed land and the land being reclaimed in the mining land subsidence by Shanghai Energy Company were approximately 8,000 mu.

China Coal Heilongjiang Coal Chemical Company carried out ecological restoration work such as comprehensive management and rehabilitation through greening of open pit mining, waste dump and ash storage yard, with the greening reclamation area of 51.5 hectares in total and 70,000 tree seedlings cultivated.

Case Study

Construction of Ecological Mining Area by Pingshuo Group

Emphasizing the harmony between coal mining and the bearing capacity of resources and environment, with the target of building a green ecological mining area and realizing the sustainable development, Pingshuo Group pays attention to environment protection and ecological restoration, enabling the ecological environment to be much better than it was before the mining.

Pingshuo Company has invested a variety of environmental protection and energy conservation funds of RMB5 billion in total on ecological environment treatment and energy conservation transformation in the mining area. 45,000 mu of lands has been reclaimed, making the reclamation rate above 90%. Afforestation around the mining area has reached over 62,000 mu, and the vegetation coverage rate in the waste dump has been increased to above 95% from the previous below 10%.

Antaibao open pit mine has been listed as the only land reclamation field observation base in China by the Ministry of Land and Resources. Ecological treatment model of Pingshuo mining area has become the model for ecological restoration and treatment of mines in Shanxi-Shaanxi-Inner Mongolia Loess Plateau district. Up till now, 300 daylight greenhouses and intelligent greenhouses with an area of 16,000 square meters have been constructed in ecological construction and ecological demonstration garden of Antaibao mining area, with the facilities such as ecological walkways, artificial lakes and ecology restaurants. Pingshuo Museum construction has finished, which has further enriched the mining relics landscape resources and historical and cultural heritage. As building projects in the ecological industry continue to expand, the ecological park integrating ecological restoration, modern agriculture and ecological tourism will grow in size.



Pingshuo green mining area

Performance in Environmental Responsibilities

Name of Indicator	2013	2014	2015
Integrated energy consumption per RMB10,000 production output (TCE/ten thousand yuan)	0.463	0.453	2.237
Recovery rate of mining area of coal mine (%)	88.8	88.9	89.1
Utilisation rate of coal gangue (%)	96.3	98.8	98.8
Utilisation rate of mine water (%)	82.4	84.4	75.4
Emission volume of sulphur dioxide (tonne)	10,660	10,693	13,045
Emission volume of NOx (tonne)	7,192	6,285	12,641
Emission volume of chemical oxygen demand (tonne)	817	719	1,034

Note Integrated energy consumption per RMB10,000 production output, emission of sulphur dioxide and emission of chemical oxygen demand increased because the statistics of newly-established and operated projects such as China Coal Huajin Company, China Coal Shaanxi Company, China Coal Ordos Energy Chemical Company, China Coal Yuanxing Company, China Coal and Coke Holdings Limited 1830 project were added. The utilization rate of mine water decreased because the comprehensive utilization project of mine water and pipe network project in Ordos were not completely constructed and put into operation, so that the mine water of the coal mines was stored in temporary reservoir.



Innovation Responsibilities

Innovation-driven Development to Take the Lead in the Industry

- Improving the Innovation R&D System
- Promoting Industry-University-Research Cooperation
- Strengthening the R&D of Core Technology
- Facilitating Progress in Industry and Technology
- Creating an All-involvement Innovation Atmosphere
- Performance in Innovation Responsibilities



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 and strategic transformation, continuously deepened the integration model of Industry-University-Research, actively explored new paths for in-depth blending of high technology and coal chemical industry, and strived to achieve the new change from the production enterprise to the technology production enterprise.



"In the face of difficulties, it is often the best time of creativity. Virtually all major technological innovations and breakthroughs in history were closely linked with crises of various kinds. One is longing for change while in difficulty, and change leads to a solution. An enterprise can seize the market only by innovation; an enterprise can be revitalised only by innovation; an enterprise can enhance its competitiveness only by innovation. "

- Wang An, Member of Chinese Academy of Engineering, Former Chairman of China Coal Energy

Improving the Innovation R&D System

With the increase of the independent innovation capability as the core, the demand of industrial technology as the orientation, using the R&D centres at all levels of the Company as the platforms, the on-the-job innovation as the basis, the research projects as the link, China Coal Energy has made integrated use of its technological advantage, and constructed and perfected the enterprisecentred technological innovation system in organic combination with industry, university and research.

The Company has taken full advantage of its scientific and technological resources to build up the technological innovation system of "the headquarter focusing on research of frontier, common and core technologies, second-tier enterprises researching on practical technologies and third-tier mines (factories) attaching importance to promotion and application of technologies", perfected the technological innovation management system, formulated rules and regulations, optimised the management processes, thereby standardizing and taking the lead in the technological innovation. In 2015, the Company formulated the "Thirteenth Fiveyear" science and technology development plan and four sub-plans regarding mining and safety, coal chemical industry, equipment manufacturing and localization of equipment and further clarified strategies, goals, research focus and measures for technological innovation during the "Thirteenth Five-year Plan". During this period, the Company will continue to adhere to the innovation strategy of integration and advancement, and construct the innovative enterprise pursuant to the general requirement of "independent innovation, open integration, major breakthroughs, promoting upgrades and leading development". The Company will fully improve the capability of independent innovation, promote the energy production and consumption revolution, facilitate the safe and green development and clean utilization of coals, thus providing the scientific and technological support for the Company's sustainable development.





China Coal Energy advances the technological innovation by focusing on the industrial upgrade. The construction of innovation R&D system has achieved remarkable results and the integrated and synergistic innovative R&D system gradually takes shape and becomes more mature. By the end of 2015, the Company has established one national energy mining machinery R&D centre, three national enterprise technology centres, two national energy technology and equipment assessment centres, six provincial enterprise technology centres, three provincial engineering research centres, eight state-certified laboratories, four post-doctoral research centres, six hightech enterprises and one coal chemical research institute, so the core technological competitiveness was guickly strengthened and the Company was successfully listed as the national innovative pilot enterprise.

Promoting Industry-University-Research Cooperation

While strengthening our own technological innovation capacity building, we attach great importance to the cooperation with external research institutes and universities, strengthen exchanges and cooperation in the cooperation mechanism, technology development, talent training and transformation of technological achievements and so on, so as to provide the technical support and talents for our technological innovation and effectively raise the Company's technological level.

The "Mechanical Testing and Big Data Analysis Engineering Research Centre of High End Comprehensive Mining Equipment" jointly declared by China Coal Equipment Company and Liaoning Technical University has been identified as the first batch of the coal industry engineering research centres, so as to provide a new platform to accelerate the transformation of scientific research results into practical productive forces.



China Coal Zhangjiakou Coal Mine Machinery Company and China University of Mining & Technology, Beijing have jointly established the "Municipal Talent Development Base for Higher Learning Institutions in Beijing", and relied on the comprehensive laboratory of coal mining equipment of the "National Energy Coal Mining Machinery and Equipment R&D (Experiment) Centre", and provided the solid basis for realizing the automation and intelligence of complete sets of mining machinery and equipment. By focusing on key scientific and technological projects, the R&D centre has completed the data collection and analysis of 29 test items, published 39 academic papers, and applied for the grant of 15 patents and 4 software copyrights. Our R&D capability has continuously improved.

Strengthening the R&D of Core Technology

In 2015, in the face of the grim situation in the coal industry, China Coal Energy, from the two directions of "enhancing cost efficiency and carrying out transformation and upgrade" and by focusing on the three themes of "safety, economy and development", achieved several achievements in the key technology development and innovation capacity building. Through a comprehensive promotion and application, the Company's overall technological level was strengthened and important contributions were made to the development of the industry. The national science and technology project "Key Technologies on Construction of the 100-million-tonne Coal Base in Hinterland of Inner Mongolia-Shaanxi" undertaken by the Company was accepted and the research results were applied in the mines of Inner Mongolia-Shaanxi base and strongly supported the project construction. The National 863 Program "Emergency Response Demonstration System" passed acceptance inspection. The emergency response demonstration system of coal mine gas incidents was constructed to effectively guarantee the production safety of mines.

The test of key science and technology project of the Company, "the gob-side entry retaining formed by roof cut and pressure releasing ", achieved success. 8820 working face of Tangshangou Coal Mine was used as the demonstration working face for the gob-side entry retaining formed by roof cut and pressure releasing automatic tunneling of thin coal layers. It started the mining on 16 December 2014, and ceased on 16 March 2015, and the tunneling was 460m. In the mining process, the roof cut and pressure releasing automatic entry retaining did not affect the normal mining of the working face. Through economic comparison, it was arranged according to the optimised plan and the cost saving was approximately RMB1,126 per meter. The performance has been identified by China National Coal Association.



Coal chemical test



Steady progress has been made in the localization of imported equipment. The Company has formulated the "Outline for Localization of Imported Equipment from 2015 to 2016", which has further deepened the work in detail, with R&D and application from key components to complete machine, and the field from underground mining equipment to open pit, wash and preparation and chemical equipment. A number of staged achievements have been made. China Coal Equipment Company has organised the implementation of 40 projects and the promoted research results have cumulatively increased the output value by RMB30 million. The scope of equipment localization has been continuously expanded, thus saving the purchase cost of RMB150 million a year.

The catalyst microactivity contrast test has been completed for the development of new catalysts of coal chemicals, thus laying a solid foundation for further development.

The underground trackless rubber-wheel car emphasisedly developed by the Company has been recognized by the State Administration of Coal Mine Safety and obtained the coal safety qualification certificate, which will become the new growth point. The prototyping sample of the first set of 8.8-meter high-end hydraulic roof support, which is the highest in the world has been completed and accepted by the expert team, which will form a new high-end support series of mining products.

In 2015, the Company strengthened its intellectual property right reserves of core technologies, and newly obtained 241 patents of which 46 were patents for invention. The total number of valid patents owned by the Company is 1,177, including 167 patents for invention. The industryoriented patent portfolio and layout have been preliminarily shaped and the competitiveness in core technology has been further enhanced.

In 2015, China Coal Energy obtained 22 science and technology awards above the industry level, including: four achievements winning the first prize of Coal Industry Technology Progress, such as the "Research in Key Control Technology for Open Pit Mining Slope Stability Coordination with Underground Mine in Pingshuo Mining Area"; the Company also won 13 patent awards of the China National Coal Association, including the "Hydraulic Roof Support of Composite Beam and Its Application" winning the first prize. The Promotion and application of the high level scientific and technological results has provided a new support for the Company's industrial upgrade.



Case Study

First New Non-recycle Methanation Technology of China Coal Heilongjiang Coal Chemical Company

In October 2015, the non-recycle methanation technology pilot test equipment, developed independently by China, was successfully put into operation in China Coal Heilongjiang Coal Chemical Company. In November, the technology also passed the technology identification organised by China Petroleum and Chemical Industry Federation, which concluded that "the comprehensive technology had reached the international advanced level". Successful development of this technology may reduce the energy consumption of and investment in the similar equipment systems by more than 25% and more than 20% respectively. It breaks the domestic situation of the dependence on import of the large-scale synthetic gas methanation technology and catalyst, and has great significance for promoting the development of the coalbased natural gas industry in China.



Facilitating Progress in Industry and Technology

China Coal Equipment Company is the largest manufacturing company in coal mining machinery in China. Now it has 7 coal machinery production bases in Beijing, Zhangjiakou, Shijiazhuang, Xi'an, Handan, Fushun, and Panjiang in Guizhou. China Coal Equipment Company is capable of R&D and manufacturing of complete sets of comprehensive mining equipment used in mines, and has the leading market share of high-end coal machinery equipment. China Coal Energy promotes the development of coal mining machinery equipment adhering to the concept of the large-scale and modernized development, 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.



Case Study

China Coal Equipment Company: From "Made by China Coal" to "Created by China Coal"

Under a severe downturn of the coal industry and with a shrinking market for coal machinery, China Coal Equipment Company actively innovated new product, expanded new market, provided high-end equipment and complete service, and transformed and upgraded from "Made by China Coal" to "Created by China Coal", so as to achieve the structural adjustment.

China Coal Equipment Company strived to transform from an equipment manufacturer to a supplier of equipment and services. Taking opportunity of in-depth adjustment of coal and coal machinery industry, the Company made great efforts to provide users with personalized, differentiated and integrated solution that enabled the high-end manufacturing of key components, professional production services, and maintenance and leasing business to become the new growth points.

China Coal Equipment Company enhanced the competitiveness of products with a high standard. Based on the highest quality standard of US Consol, highest standard of safety and health in Australia and highest quality standard of Europe, China Coal Equipment Company, considering the national standard, formulated 23 items as its own standards. Excellent strength in safety, health, reliability and automation helped the company expand a broad international market.

China Coal Equipment Company aimed at the development direction of high-end, intelligence and environmental protection. Guided by "Made in China 2025", the company adhered to technological innovation, strengthened the international cooperation, promoted the high-end, intelligent and green development of complete sets of equipment for working face of mines. It played a leading role in the localization of coal mine equipment and continued to take the lead in the manufacturing of coal machinery.



China Coal Equipment participated in the International Coal Mining Equipment Exhibition

Creating an All-involvement Innovation Atmosphere

Firmly establishing the concept of promoting development through technological innovation, adhering to the principle of people orientation, respecting talents and inventions, China Coal Energy encourages independent innovation, allinvolvement innovation and continuous innovation, and constantly deepens the value guidance to an advocacy of innovation, efficiency and entrepreneurship. In this way, there has been a strong atmosphere of all-involvement innovation.

In 2015, the Company widely organised "Five Small" technology projects and activities of rational proposals in order to solve the key problems regarding the safety, production, technique and quality in the construction sites, which yielded approximately 2,000 research results, making great contributions to the enhancement of safety assurance capability, technological level, product quality and economic benefits.

During the period of the first national weekly campaign of "Starting own business and making innovation", the Company widely organised its subordinate enterprises to carry out all-involvement innovations, and displayed 568 representative "Five Small" achievements of technological innovation in terms of mining, chemical engineering, mechatronics and coal preparation. These achievements were verified by practical application and acquired remarkable progress, leaving positive effects for guaranteeing safety in production, strengthening cost control, improving economic benefits, enhancing working efficiency, lowering the intensity of labour.



All-involvement innovation



Case Study

China Coal Huajin Company Encouraged All-involvement Innovation

Taking the "Starting own business and making innovation" as the key point, China Coal Huajin Company has emphasized the integration methods, thus integrating rational proposals and "Five Small" activities, and it has led the staff to firmly hold the idea of "Innovation and Efficiency is Accessible for Everyone" so that everyone is encouraged to be an "innovator".

Huajin Company has given commendation and rewards for 70 outstanding achievements of "Five Small" technological innovation during the selection and display of "Five Small" technological innovation. Excellent employees have been recommended for the awards event of Shanxi Coal Society. Wangjialing Mine has won the honour of the top ten Shanxi collieries of technological innovation, Li Anjing, the mine manager of which has been awarded the title of the excellent mine manager. In Wangjialing Mine, three persons have won the title of Shanxi model employees of coal technological innovation and other five have won the title of Shanxi excellent employees of coal technology.

Huajin Company has disseminated the exemplary deeds of the model employees of innovation, demonstrated the achievements of innovation and efficiency, put up the photos of 36 award winners and encouraged greater enthusiasm of front-line staff, in this way, a good environment of "Allinvolvement innovation any time, any where" has been shaped.



Case Study

"Blue Collar Economy" of Shanghai Energy Company Showed Great Economic Benefits

Shanghai Energy Company greatly motivated the employees' proactive participation in creating, through establishing the technology and innovation activity system for the mass. Many employees took initiatives to innovate at their posts, and made achievements in their work. A number of employees made outstanding achievements by making innovation independently, and "Blue Collar Economy" showed tremendous economic benefits. In 2015, the company produced over 1,600 "Five Small" technology innovation results, creating more than RMB30 million benefits; carried out over 900 labor competitions of various types, creating more than RMB40 million benefits; put forward more than 20,000 rational proposals, of which

more than 1,400 proposals were implemented, creating more than RMB15 million benefits; carried out more than 1,000 energy-saving and repair recycling activities, creating over RMB30 million benefits. The company selected 100 out of approximately 1,000 innovative achievements made by employees and prepared the Employee One-Hundred Technology Innovation Achievements collection, which was printed and distributed to groups and teams for employees to study, thus creating a strong all-involvement technology innovation atmosphere, which in turn motivated the employees to make great contributions to the development of the company.

Performance in Innovation Responsibilities

Name of Indicator	2013	2014	2015
Technological investment (RMB100 million)	18.2	14.92	10.83
Number of technological advancement awards above industry level (items)	18	19	22
Number of patents (items)	224	186	241

Responsibilities of Employees

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





Employees are the foundation of enterprise and closely tied to the 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 realizing the synchronous development of both the enterprise and employees.

We showed solicitude to people's livelihood inside the enterprise, secured normal payment of wages, paid insurance premium as required, conducted support activities and helped employees overcome their difficulties.

——Peng Yi, Non-executive Director of China Coal Energy

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 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. The Company forbids all forms of workplace discrimination, and there are no instances of child labour and forced labour. The Company protects the rights of female employees by equally remunerating employees who hold the same position, regardless of gender, as well as by forbidding the recruitment of female employees to work in underground

mines. In 2015, the Company entered into employment contracts with 100% of its employees.

The Company enhances the competition-based system for picking the talents and vigorously promotes a marketoriented approach in talent acquisition and competition-based employment. In 2015, the deputy general managers of 4 regional sales companies were publicly recruited. According to the actual construction and operation of power projects, the Company introduced three senior management talents through open recruitment and recommendation by industry experts. For the first time, the managers of second-tier companies were hired by open recruitment to the public, and the general manager of China Coal Equipment Company was selected by competition-based employment. All of these achieved good results.

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Case Study

China Coal Pingshuo Group Employed the Deputy General Manager in Charge of Electric Power Business through Open Recruitment

In August 2015, China Coal Pingshuo Group developed the channels to introduce senior talents and selected the deputy general manager in charge of power business through open recruitment. The recruitment information was published on newspapers and websites and the strict assessment was conducted to the applicants. The final candidates were selected by means of semistructural interview, mental quality test, leadership test and interviews, etc.

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. It 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.

Case Study

China Coal Heilongjiang Coal Chemical Company Widely Encouraged Employees to Make Reasonable Suggestions

In order to promote the all-involvement participation and standardization of innovation and efficiency increase among all employees, strengthen the relevance and practicality of their innovation and efficiency increase, create a working atmosphere of all-involvement participation, taking responsibilities of own position, starting from details and attention to practical effect, and continuously improve the level of corporate management, China Coal Heilongjiang Coal Chemical Company carried out the activity of "My Suggestion to My Position" throughout the company since July 2015.

In 2015, a total of 12,703 pieces of suggestions were collected and summarized into 9,865 pieces, including 2,160 pieces for love and dedication of job, 1,493 for quality improvement, 1,986 for saving and potential exploiting, 1,129 for high quality services, 1,895 for

refined management, 946 for environmental improvement and 256 in other aspects. The company sorted out 31 pieces of excellent suggestions for cost reduction and efficiency increase, and 80% of them were implemented. The suggestion of "Improvement of Dust Suppression System" proposed by Li Zijun from the mining company is being realized progressively, thus improving the onsite working environment of employee. The chemical company implemented the suggestion by Rong Hongping for setting up the methanol recovery device to recover the methanol from routine sampling and equipment inspection and drainage so as to reduce waste. The activity of "My Suggestion to My Position" passes the ideas of cost reduction and efficiency increase and arouses the enthusiasm of employee participation. This has already become the normal work of companies in the face of challenge and making progress.



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, continuously increases investment in occupational health, further strengthens the publicity and prevention of the occupational health, and enhances the site supervision and inspection efforts to ensure the effective implementation of the occupational health work.

Pingshuo Group strengthens the publicity and education and occupational health training of occupational diseases, publicizes through the television, websites, newspapers, radio, billboards and bulletin board, and meanwhile prints and distributes the occupational health promotional materials, organises employees to hold the forums, quizzes and lectures, so as to create a prevailing atmosphere.

Shanghai Energy Company increases its efforts in the prevention facilities for checking the source of occupational hazards, secures the cost of occupational health expenses, utilizes a variety of new equipment, new materials, new processes, new systems and other modern equipment and technology and effectively improves the ability of comprehensive dust prevention and noise reduction. Therefore, it has been recognized as the "Advanced Unit in Occupational Disease Prevention" by the Centre for Disease Control and Prevention of Jiangsu Province for eight consecutive years.

China Coal Mengda Chemical Company enhances the supervision, inspection and remedial work in occupational health site, organises to revise the occupational health hazard checklist, checks with the list, establishes the hidden hazard control mechanism of weekly check in workshop, monthly check in department and quarterly check in company and implements the "six-step" close loop mechanism of checking, recording, assessment, rectifying, acceptance and elimination.

China Coal Ordos Energy Chemical Company strengthens the emergency management and drills of occupational health, organises the preparation of the "occupational hazards emergency plan", conducts the on-site emergency exercises and improves the self-defense, self-help and emergency response capabilities of employee.

Case Study

Construction of Dustless Mines of Shanghai Energy Company

Shanghai Energy Company, in accordance with the Regulation on the Occupational Hazard Prevention and Control in Coal Mine Workplace, clarifies the working philosophy of "control at source, systematic dust reduction and process control", actively constructs the dustless mines and promotes the dust prevention and control from resultoriented to process-oriented, from single passive control to active control at source.

The Company conducts the research and application of comprehensive dust control system technological processes and equipment in mines, as well as complete sets of efficient dust suppression technology, equipment and facilities, and has developed a series of dust prevention equipment, such as wet spraying machine, dust blower, coal seam injection pump and automatic spraying and dust prevention device.

The Company promotes the application of the intelligent spraying at the working face for comprehensive mining, which can improve the dust removal efficiency by over 30% in contrast to the conventional manual dust prevention device.

The Company explores new ways of water injection into coal seam and implements the dust control at source. Datun Coal Mine has relatively small porosity of coal seam. To improve the effect of water injection, the company launched a water injection into coal seam by dynamic pressure so as to ensure that the moisture increase after water injection reached more than 2%.

The dust gauze is used in all of the underground mining faces. In the return airway and the mining working face, dust arresters are installed in proper positions of return airway and working face. The dust gauze moves with the working face and it is used in cooperation with the purification water curtain and the dust removal rate is over 60%.



Construction of dustless mines



Ensuring the remuneration of employees

China Coal Energy always focuses on the employees' benefits. Confronted with the severe downward situations 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 performance-linked salary, the Company advanced the pressure transfer, strengthened the total wage budget constraints, and implemented the overall pay cut plan. Remunerations of managers were decreased, but front-line employees underwent less or no cut in their salaries. Therefore, while the annual labour cost fell by 5%-20%, the Company guaranteed the basic salaries and benefits of employees and maintained a stable workforce.

Under the circumstance that over 90% of coal companies suffered from losses, some of which had delay or arrears in wage payment, we strengthened the overall plan of fund utilization, established the monthly reporting system of wages, conducted the macro-control from the company level and gave priority to wage payment of employees. No arrears of wage occurred during the year of 2015.

Promoting Career Development of Employees

We believe that employees are the main force for the development of an enterprise and that the development of the employees and the company are complemented 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 the capacity training and potential development for the employees, and broaden the stage for skills upgrade and comprehensive growth, thus providing conditions for employees' development.

According to the idea of "big training", we coordinated various training resources and set up three training bases, namely China Coal Energy Vocational and Technical College, Pingshuo Group Education and Training Centre and China Coal Chemical Training Centre, covering coal production, coal washing and preparation, power and coal chemical etc..

The Company conducted thematic training. China Coal Energy Vocational and Technical College hosted three phases of "Titanium" elite blue collar training to train the needed talents in mining, ventilation, geology and electromechanical specialties for 10 companies. A PLC special training course was held to improve the skill operation level of front-line employees and maintain the technical level of automation equipment.

In 2015, China Coal Energy had 2 members listed in the State-level Candidates of the New Age Hundred-Thousand-Ten Thousand Talents Project, over 200 senior professional managers in the coal industry, 26 "master technicians in the coal industry", 4 "excellent technicians in the coal industry" and 14 skill masters workroom in the coal industry.

Case Study

Cradle for "Titanium" Blue Collars of China Coal Energy

In recent years, China Coal Energy vigorously has implemented the strategy of prospering the enterprise by talents, and attached great importance to employee training. Over 800,000 attendees have been trained in recent five years, which has provided full service for the Company's reform and development. Currently the Company has one level-2 training institution, nine level-3 training institutions and ten level-4 training institutions with 1,509 full-time and part-time teachers.

The Company builds a "CPU" training model. In order to cultivate a number of "Titanium" elite blue collars in a short time, China Coal Energy has creatively proposed the "CPU" training model, which is the joint training of three parties, namely chinacoal – professional – university, to cultivate comprehensive talents with solid theoretical foundation, strong working ability and adapting to corporate needs.

Synchronous upgrade of software and hardware. The practical training environment for the training centres of China Coal Energy continues to improve. Pingshuo Education and Training Centre has constructed a teaching and laboratory

building covering an area of 20,000 square meters, with 12 practical operation bases for trucks, construction machinery and outdoor repairing. China Coal's coal chemical training centre relies on the existing equipment at production site and auxiliary production centre and various simulation training rooms to meet the practical operation training need of all specialties, work types and positions of coal chemical. Many newly recruited university graduates repeatedly exclaimed: "Much better than our laboratory in university! We never see so many real equipment!"

Help to secure the production safety. The coal branch of Zhongtian Synergetic Energy Company Limited has sent 183 employees in four batches to China Coal Energy Vocational and Technical College for pre-job training. They became the backbone and provided employee guarantee for the smooth production of Hulusu Coal Mines in 2015. Shaanxi Company arranged newly recruited college graduates for trainings at China Coal Energy Vocational and Technical College. Through training, they mastered the professional skills and laid a solid foundation for the "safe and stable" running of the coal chemical.



Employee training



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 good atmosphere of enterprise caring for employees and employees loving the enterprise, promoting the comprehensive development and overall progress of both enterprise and employees.



Employee Walking Event



Beijing Coal Mining Machinery Company Evening Party

Case Study

China Coal Huajin Company Enriched Employees' Spiritual Life

In 2015, Huajin Company constructed an employee stadium, with nine sports associations which often organised competitions of ball games, outdoor sports, art, swimming, chess and fishing etc., so that there were activities every month. Meanwhile, during the holidays, a series of activities were extensively undertaken, such as the fun games of "Celebrating First Day and Welcoming New Year" and for Women's Day, and exhibition of photographic, calligraphic works and other handiworks to celebrate the "National Day", which greatly enriched the off-work life of employees.



Enriching the cultural life

China Coal Energy, on the basis of the employees needs of the spiritual and cultural and the practicality of the company, widely organises the colourful cultural and sports activities delighted by employees, gathers the employees' strength, so as to enrich their spiritual and cultural life and edify their moral sentiment.

Helping employees in need

China Coal Energy solves the practical problems in life of employees, establishes a multi-channel assistance and support system in various forms and sets up the efficient mechanism of "warmth in spring festival, help of single parent in Women's Day, caring for labor models on Labour Day, assistance for students in September and daily mutual help and support".



Case Study

Shanghai Energy Company Cared for Employees in Need

Shanghai Energy Company laid stress on the livelihood in the days of difficulties in operation and carried out the activity of festival visits, warmth for poverty alleviation and help of students in autumn. A total of more than RMB1.3 million was donated, including RMB222,000 for 37 employees suffering from serious diseases, RMB69,000 donated for help of 66 employees through daily donation mechanism, RMB25,500 for support of 17 students in autumn and RMB160,000 for help of 107 difficulty employees during spring festival. Also, the special fund for diseases of women employees used with application of RMB40,000 for help of 32 women employees suffering from diseases.

Performance in Employee Responsibilities

Name of Indicator	2013	2014	2015
Number of on-the-job employees	55,261	54,150	52,648
Contract signing rate (%)	100	100	100
Social insurance coverage (%)	100	100	100
Trade union participation rate (%)	100	100	100
Staff turnover rate (%)	2	1.8	1.6

Community Responsibilities

Benefiting the People's Livelihood and Repaying the Society

- Benefiting Local People's Livelihood
- Supporting the Social Benefit
- Performance in Community Responsibilities



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In recent years, coal enterprises witnessed obvious profit drop, faced more challenges in production and operation. Facing the serious situations, China Coal Energy, while attaching importance to value creation and pursuing sustainable development, actively supported the development of local economy, organised various activities to help and support the underprivileged, made donations for education and relieved the disasters, which contributed its due share to the local economic and social development.



"Thanks to the support from China Coal Energy, we can have a warm and happy Corban Festival this year. Work Group of China Coal, Yakexi (good job)!"

- Emel Arbra, a villager of Akesu Prefecture of Xinjiang Uygur Autonomous Region

Benefiting Local People's Livelihood

China Coal Energy, with its own funds, labors and technologies, actively participates in local economic construction and offers assistance to communities in project construction, production and sales, etc., to promote the upgrade of local industries and economic development, achieving the win-win harmony with local government. In 2015, the total social contribution of China Coal Energy reached RMB16.519 billion including taxes, salaries, realized net profit and interest cost, of which all kinds of taxes and fees amounted to RMB6.15 billion, accounting for more than 10% of the operation revenue. In 2015, China Coal Energy totally donated RMB1.2734 million, of which RMB1 million was used for sponsoring the 10th National Ethnic Minority Traditional Sports Meeting.

Promoting Local Employment

China Coal Energy has always been insisting on the employment modes including open recruitment and labor 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 employ local talents as regular employees to promote the employment of Shaanxi and Yulin. Now, over 500 of registered employees of this company are from Shaanxi province, constituting almost half of the total employees. So far, China Coal Energy has provided jobs for 347 people within Wushenqi (107 from Tuke Town) since the implementation of project of Ordos Yihua Mining Resources Company Limited.

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.

Supporting Local Construction

China Coal Energy always concerns the impacts of its construction on surrounding communities and actively takes measures to support the local construction and development to seek for all-win development, thus the good relationship with local government has been established.

Under the process of construction and production, China Coal Shaanxi Company gradually established an effective communication mechanism with local authority. In land acquisition, the company actively communicated and coordinated with local government to properly solve the issues regarding relocation of villagers and land use, etc. Meanwhile, China Coal Energy assisted the communities in building roads, including construction of 7 roads in 4 natural villages, paving of 51km coal gangue and laying of 240m³ commercial concrete in total, which made it more convenient for villagers to travel and promoted the local development.

In view of the local people's demands, Ordos Branch invested nearly RMB100,000 to build about 6km sandstone road for local community with coal gangue, which improved the road conditions which had been muddy in rainy season and dusty in dry seasons before, and made it more convenient for local residents to travel.

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Case Study

Xinjiang Branch Promoted Local Economic and Social Development

China Coal Energy Xinjiang Branch focused on the construction of local people's livelihood and made use of its business advantages to concern more about the needs of the local people's livelihood and offer services for local economic and social development.

Investing in construction projects. China Coal Energy Xinjiang Branch established three project companies in Yili, Hami and Changji, respectively. In 2015, RMB412 million were invested in projects in Xinjiang, promoting the local economic development. At present, the second Power Plant located in north Wucai Bay, Zhundong, Xinjiang has been approved by the autonomous region and is now in construction. Active progress has been made in negotiation for the mining right of No. 10 coal mine of Dananhu in Hami, and the preliminary works of 2 power plants in Hami are steadily progressing.

Maintaining stability and supporting the underprivileged. 2015 is the second year when Xiniiang Uygur Autonomous Region organised the activities of "visiting people, benefiting people's livelihood and gaining people's support-", and Xinjiang Branch dispatched a stability maintenance and poverty alleviation working group again for the said purpose. Based on the experiences in 2014, the working group made innovations and conducted sufficient studies. It also carried out "accurate" assistance and optimised and adjusted the 3-year plan for helping people's livelihood, implemented 13 projects related to benefiting people, including reconstruction of pipeline works of tap water, renovation of culture activity centre of the mass, village land construction and improvement of safety facilities of schools, etc. The branch donated about RMB200,000 and obtained local poverty alleviation fund of about RMB2 million. The working group stationed in the

village helped 10 Uyghur poverty students spontaneously, and donated RMB20,000 and more than 50 pieces of clothes.

Carrying out one-on-one support. In 2015, the company donated RMB100,000 to the poverty village at autonomous region level Boer Bosong Village, Subutai Township, Nileke County, Yili Prefecture for subsidies for construction of relocation house of underprivileged people. It donated RMB200,000 to Sanchang Caozi Muye New Village, Beiting Town, Jimsar County, Changji Prefecture, where China Coal Xinjiang Coal Electricity Chemical Company Limited is located, for infrastructure construction and strengthening collective economy, etc. Together with Shanghai Energy Company, it donated more than 4,000 pieces of clothes to the "visiting, benefiting and gathering" working group in South Xinjiang, and distributed them to households in difficulties, households enjoying the five guarantees and households enjoying minimum living guarantee before the cold winter. In 2015, Xinjiang Branch made various donations- worth more than RMB500,000 in total, receiving unanimous appraise of the local government and people.



Help and assist the underprivileged students



Supporting 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 people.



Case Study

China Coal Huajin Company Participated in Rescue of Yicheng Shouwang Mine

On the morning of 5 July 2015, a water detection borehole burnt on the excavation working face of 2203 conveyor gateway of Shanxi Yicheng Shouwang Coal Company, trapping 4 people. The emergency rescue centre of Huajin Company followed the uniform dispatching of Linfen Coal Industry Bureau and arrived at the rescue site in the first time and successfully rescued the 4 trapped people, receiving the briefing recognition of Linfen Coal Industry Bureau.



Mine accident rescue



Providing Volunteer Service

China Coal Energy is concerned about social benefit. 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 old and other people in need, transferring positive energy to the society.



Case Study

Young Volunteers of Pingshuo Group were in action

Pingshuo Group actively participated in various public benefit activities held in Shuozhou City. In 2015, it organised employees to participate in the social donation activity of "sending warmth and giving love", with donation amount of RMB150,000; the communist youth league organisation vigorously carried forward the young volunteer service spirit of "dedication, fraternity, mutual assistance and advancement" and carried out volunteer service activities such as "learning from Lei Feng" and "sunshine project". In the theme activity month of "learning from Lei Feng", it organised more than 100 young volunteers from grass-root units to provide volunteer services including free diagnosis, free hair cutting, giving environmental protection bags and home appliances repair for the residents and people. Some volunteers even visited the old periodically to clean their houses and help them solve living difficulties; in the love donation activity of "life relay-we are running" organised in Shuozhou City, a 21-year-old girl named Zhang Ruijuan, who was tortured by a stubborn illness, received a donation amounting to RMB41,881.



Volunteer services

Case Study

Volunteers of Shanghai Energy Company Provide Sincere Services for the Community

The volunteer service team of Shanghai Energy Company has been growing continuously since its establishment, and now it has 93 registered members. For many years, it has stuck to carrying out volunteer activities, with its love dedication spreading to every corner of the mining areas. Based on mines, it has insisted on carrying out "sending warmth in winter, sending coolness in summer and protecting safety" activity, with the young worker safety education coverage up to 100%; advocating "green mine trip", it has cleared 3,000 m² of weeds and white garbage; it has entered into communities to carry out the practical activity with a theme of "learning from Lei Feng and building up new spirit", examine electric circuits, repair home appliances and measure blood pressures, etc. for community people, with more than 2,000 benefited persons; facing the society, it has joined Xuzhou Public Benefit League and participated in such activities of "Hope Project-Hand-in-Hand Care", "Upholding Lei Feng's Spirit and Showing the Style of Youth", blood donation and donation of hematopoietic stem cells, with amount of accumulative donated blood of more than 35,000 ml.



Voluntary blood donation



Performance in Community Responsibilities

Name of Indicator	2013	2014	2015
Taxes paid (RMB100 million)	126.64	104.02	61.5
Amount of donation (RMB10 thousand)	796	198.84	127.34
Social contribution per share (RMB)	2.09	1.74	1.34

2016 Outlook

At present, with the slowing down of national energy consumption growth and speeding up of optimisation of energy consumption structure, coal demand decreases sharply and operation of coal enterprises becomes more difficult, resulting in the virtually overall loss of the coal industry. Some coal mines have been shut down and coal production and sales have declined year by year. The imbalance between supply and demand and the difficulty facing the coal industry are expected to last for a long time.

2016 is a crucial year for China Coal Energy to make up the deficit and shake off the dilemma. We will stick to the bottom-line and problem-oriented thinking, emphasize on "Three Decreases, One Reduction and One Remedy" (cutting overcapacity, de-stocking, de-leveraging, reducing cost and remedying the weakness), deepen the reform, speed up the transformation and upgrade, strengthen operation control, prevent and relieve risks, guarantee the safety and stability, fulfil social responsibilities and strive to realise the target of making up the deficit and shaking off the dilemma, so as to lay a solid foundation for sustainable and healthy development for the Company.

The Company will improve the quality and efficiency and strive for making up the deficit and shaking off the dilemma. It is expected to maximize production efficiency by optimising coal production organisation, strengthening the management of coal quality, optimising the market layout and strengthening the production and marketing cohesion. Besides, the Company will improve operation management of coal chemical industry to achieve balance between production and sales of coal chemical products, so that indicators of safe, stable, long-term, fullload and high quality operation will enter top three in the industry sooner. The Company will remove "zombie companies" as quickly as possible, actively promote coal decapacity, and launch special projects to address problems of unprofitable enterprises and help them make up the deficit and shake off the dilemma.

The Company will be transformed and upgraded to promote the sustainable development. The Company aims to create itself into a clean energy supplier with relatively strong international competitiveness, pays special attention to the implementation of the "Thirteenth Five-Year Plan", speeds up its structural adjustment and promotes transformation and upgrade to deepen the sustainable development. The Company pays special attention to the project management and accelerates the construction of key projects, so as to create benefits as soon as possible.

The Company will implement comprehensive management in enhancing safety. Decline of enterprise profits and increase of safety risks lead to more difficult safety control. We will highlight key control areas, strengthen safety and quality standard management, enhance the supervision and inspection, and strictly implement the responsibility, resolutely putting an end to larger accidents, and achieving "zero fatality" goal to ensure stable and safe production. The Company will protect the environment and promote green development. In order to speed up industrial structural adjustment and promote transformation and upgrade, the Company in the next few years will continue to accelerate the construction of coal-fired power generation and coal chemical projects, and promote clean coal efficient utilization, which will inevitably increase energy consumption and total emissions. We will further strengthen the environmental protection work, advocate the concept of green development, improve environmental protection of construction projects and, pay special attention to the construction, operation and maintenance of environmental protection facilities, ensuring to meet the discharging standard, and striving to build a "resourceconserving and environmental-friendly" enterprise.

The Company will transform the developmental force through innovation. The Company will put more emphasis on technology research based on cost decreasing and benefit increasing, safety assurance and transformation development, and continue to properly implement the Three Year Action Plan of "technology optimisation, cost decreasing and benefit increasing" to promote cost reduction by using technologies. Besides, the company will deepen entrepreneurship and innovation activities, deeply promoting the integration of industrialization and informatisation to promote innovation and development of traditional industries.

The Company will insist on people-oriented approach to safeguard the rights and interests of employees. The Company will adhere to the culture concept of "Harmony" to establish harmonious labor relations, defend the rights and interests of employees and improve life and working environment of employees. The Company will continue to focus on people's livelihood in company, guarantee the normal wage payment, pay insurance fees according to regulations, carry out warmth-conveying and support-offering activities and help out difficult employees. The Company will make great efforts to provide high quality training services for employees, improve training system and promote professional development of the staff.

The Company will contribute to the society and achieve harmony and win-win results. The Company will adhere to its social responsibilities, and support local economy while maintaining its own development, benefiting the local people and achieving harmony and win-win results. The Company will continue to support the public welfare undertakings, and actively assume its social responsibility to be a good corporate citizen.

Sturdy grass withstands high wind; true gold stands the test of fire. In the face of the huge adjustment of the coal industry, China Coal Energy will firmly fulfil the enterprise mission of "providing quality energy, leading the industry and creating a prosperous life", integrate social responsibility concept and requirements of sustainable development into the enterprise development strategy and daily operations, uplift comprehensively the capability in creating value for the economy, society and environment, continue to enhance operational transparency and reputation of the Company, achieve harmonious development with the stakeholders, and strive to become a clean energy supplier with relatively strong international competitiveness.



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

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请联系我们	Please contact us
公司名称:中国中煤能源股份有限公司	Company's name: China Coal Energy Company Limited
总部地址:北京市朝阳区黄寺大街1号	Address of Head Office: No. 1 Huangsidajie, Chaoyang District, Beijing, China
邮政编码:100120	Postal Code: 100120
联系部门:企业文化部	Department for contact: Department of Corporate Culture
联系电话:(010) 82256293	Telephone number: (010) 82256293
传真电话 : (010) 82236454	Fax number: (010) 82236454
电子邮箱:ruanshij@chinacoal.com	Email address: ruanshij@chinacoal.com
公司网站:www.chinacoalenergy.com	Company' s website: www.chinacoalenergy.com

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