

2018

中煤能源社会责任报告

CHINA COAL ENERGY CSR Report



Description for the Preparation of the Report

Summary of the report

China Coal Energy CSR Report 2018 is the tenth 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 2018 and fully discloses the Company’s philosophy of sustainable development, practices and results in performing its responsibilities on economy, safety, environment, innovation, employees and community.

Range of period

From 1 January 2018 to 31 December 2018. To increase the comparability of the report, certain contents may date back to previous years when appropriate.

Scope of reporting

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

Basis of preparation

“Guidelines on Industry Information Disclosure of Listed Companies” of the Shanghai Stock Exchange;
“Environmental, Social and Governance Reporting Guide” (ESG Reporting Guide) of the Stock Exchange of Hong Kong Limited. The Company has complied with the disclosure requirements of the “comply or explain” provision set out in the ESG Reporting Guide;
“GRI Standards” issued by Global Reporting Initiative (“GRI”);
“Guidelines on Preparation of Corporate Social Responsibility Report for Corporations in China – Coal Mining and Processing Industry” (CASS-CSR3.0) of the Chinese Academy of Social Sciences.

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.

Access to the report

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

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Chairman's Statement



Year 2018 marks the 40th anniversary of China's reform and opening-up. It was also the year of kicking off the efforts to put all the guiding principles from the Party's 19th National Congress into action. For China Coal Energy, it is a year of seeking growth in stability, and a year of solid improvement and bumper harvest. During the year, the Company further implemented supply-side structural reform under the guidelines of the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era. Seizing favourable market opportunities, the Company took the initiative to leverage the trend and strive hard with concerted efforts and commitment, leading to significant increase in operating results and continuous improvement in operating quality. The Company has also made breakthroughs in key activities and achieved remarkable success in reform and innovation, opening up a new dimension for improving

operation and development on an ongoing basis. Meanwhile, the Company actively fulfilled the social responsibility, and made new efforts and obtained new achievements in aspects of value creation, safe production, environmental protection, science and technology innovation, staff care, community building, and so on.

Fully improving quality and efficiency and further achieving better results in production and operation. The Company responded actively to the State's call for securing supply by strengthening production structure to optimise continuous production and accelerate release of superior production capacity, thus achieving an output of 77.13 million tonnes of commercial coal, maintaining the year-on-year growth trend. Leveraging on the expertise advantages in coal sales, the Company actively expanded



external resources to meet the diverse needs of customers and enhance quality supply capacity, achieving an external coal sales volume of 156 million tonnes, representing a year-on-year growth of 21.3%. The Company continued to strengthen refined management of coal chemical production and ensured full, sound, safe and stable operation of the coal chemical facilities in the long run. The mining equipment enterprises tapped the production potential, resulting in the substantial growth of mining equipment production value. The Company tapped the potential and promoted the efficiency by strengthening cost management and control, resulting in obvious increase of profitability. During the Reporting Period, the Company realised the operating revenue of RMB104.1 billion with a year-on-year growth of 27.8%, representing the historical best result, and the total profit of RMB8.79 billion with a year-on-year increase of 49.1%, hitting a record high in recent years.

Paying great attention to safety supervision and improving the safety assurance ability. Always adhering to the safety concept of “Safety is of Vital Importance, Life is the Most Valuable”, China Coal Energy vigorously carried out its safe development strategy, highlighted key control areas, paid great attention to prevention and control of major disasters, reinforced safety fundamentals, intensified the commitment of responsibility and rigidly executed safety supervision, as a result, the situation of production safety maintained stable, prevented production safety incidents and realised safe production. The Company kept promoting safe production standardisation, with 10 coal mines meeting the national first class standard.

Building a “Green China Coal Energy” and improving green development quality. China Coal Energy thoroughly carried out the overall plan of national ecological civilization construction, stringently implementing national laws and regulations on ecological and environmental protection, consciously practised the concept of green development, actively promoted the green development and clean and efficient utilization of coal, constantly strengthened the control of environmental hidden risks, and resolutely made every effort to fight the pollution prevention and control battles. During the Reporting Period, the Company didn’t record any great or more severe environmental incidents, with emission of sulphur dioxide, NO_x, chemical oxygen demand and ammonia nitrogen decreasing for three consecutive years as compared to the previous years. Nine coal mines were recognised as State-level Pilot Green Mine Unit (國家級綠色礦山試點單位), while six enterprises were awarded Advanced Enterprise of Energy Conservation and Emission Reduction for Coal Industry (煤炭工業節能減排先進企業), and the Pingshuo Group was rated as 2018 Enterprise of Social Responsibility in Environmental Protection (2018年度環保社會責任企業) for its social responsibility case Mine Reclamation for Rebuilding Beautiful Territories (礦山復墾再造綠水青山) winning the 2018 Gold Award for Environmental Protection of Golden Flag Award (2018年度金旗獎環境保護金獎).

Strengthening innovation drive and leading the industry development of science and technology. China Coal Energy kept its technological innovations to the “safe, economical, green and intelligent” development direction, concentrating on “a clean energy supplier and an integrated energy service provider” strategy and corporate transformation. In the meantime, the Company fastened the research and tackling on key technologies and promoted the upgrading of “mass entrepreneurship and innovation” works. As a result, the Company made breakthroughs of a number of key technologies and achieved new improvements on the overall efficiency of technology innovation, rendering new contributions to safety assurance, quality and efficiency improvement as well as the innovative development of the enterprise. In 2018, the Company

won 21 science and technology progress awards of the industry and the province, was granted 155 patents, resulting in further enhancement of the core technical competence.

Adhering to the people-oriented principle and safeguarding employee’s legitimate rights and interests. Sticking to the philosophy of “harmony”, China Coal Energy has built harmonious labour relations and strengthened occupational health protection to fully safeguard the employee’s legitimate rights and interests. The Company kept improving the salary distribution system, deepening the distribution system reform and optimising the income distribution structure, so as to ensure basic salary and benefits of the employees and maintain a stable work force. The Company was determined to provide the employees with more benefit while maintaining its development, so that they could share the development result with the enterprise.

Benefiting the society and people’s livelihood and promoting the economic and social development. China Coal Energy insists on win-win harmony and supports the development of the local economy and society. In 2018, the total amount of the Company’s social contribution reached RMB31.96 billion, including paying taxes, labour costs, realised net profit and interest expenses, with the social contribution value per share being RMB2.41, of which overall taxes and fees amounted to RMB12.985 billion and accounted for 12.5% of its operating revenue. The Company actively responded to and implemented national strategies of targeted poverty alleviation and gave full play to its own advantages to help achieve the objectives of targeted poverty alleviation. In 2018, the donation made to the society and poverty alleviation funds utilised by the Company amounted to RMB16.8 million. The Company also encouraged its employees to carry out various forms of volunteer service activities, thus helping spread positive energy in the society.

The year 2019 is the 70th anniversary for the founding of New China and also a crucial year for completing the process of building a moderately well-off society in all aspects. The Company will follow the work principles of “quality improvement in stability with reform and innovation” and focus on supply-side structural reform under the guidelines of the Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era. The Company will also make overall plans to ensure safety, maintain steady growth, adjust structure, focus on reform, promote innovation, improve efficiency and prevent risks, and constantly promote the high-quality development of the Company. At the same time, China Coal Energy will inject the “gene” of social responsibility management throughout the entire process of corporate management, stimulate the potential of stakeholders in a concerted effort to deliver social value, effectively manage the impact of its operation on the society and the environment, and create the highest possible combined economic, social and environmental value during the course of corporate development.

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

Li Yanjiang
15 March 2019

Company Overview

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

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

Coal industry

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

Coal chemical industry

The Company focused on the development of modern coal chemical engineering such as coal-to-olefin and coal-to-urea operations and prioritized the development of coking industry. The coal chemical business is mainly located in provinces such as Inner Mongolia, Shaanxi and Shanxi, with its large-particle urea project in Tuke, Ordos being the largest single plant in China.

Power generation industry

Aiming to restructure the industry and absorb its self-produced coal, the Company proactively developed environment-friendly pithead power plants and power plants utilizing inferior coal, and participated in the construction of downstream power plants. The business is mainly located in provinces such as Shanxi, Jiangsu and Xinjiang, and the annual utilization of cleaned coal by-products such as coal gangue and coal slime surpassed 10 million tonnes.

Coal equipment manufacturing industry

The Company's subsidiary China National Coal Mining Equipment Co., Ltd. is China's largest coal equipment manufacturer that provides the most comprehensive products and services, taking the lead nationwide in having the capability to develop, manufacture and supply coal exploitation equipment and building a world-leading coal machine equipment test platform, and playing a model role in boosting the upgrade of coal mine equipment, the application of Chinese coal mine equipment and the technological progress of the coal industry.



Sand Table of China Coal Energy's Business Layout



Corporate Culture



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

China Coal Energy's Vision To Build Itself into a Clean Energy Supplier and an Integrated Energy Service Provider with Relatively Strong International Competitiveness

China Coal Energy's Mission To Supply Quality Energy and Lead Industrial Development for a Prosperous Life

To supply quality energy: to build itself into a clean energy supplier, adhere to the integration of coal, electricity and chemical, promote clean and efficient utilisation of coal so as to provide energy assurance for China's economic construction.

To lead industrial development: to strive to become the leader in the safe green production of the energy industry, the demonstrator of the utilisation of clean energy, the propeller driving the technological advancement of the industry, and the practitioner in providing quality service.

To create a better life: to adhere to the people-oriented principle to make employees feel more fulfilled, happy, and safer; to fulfill social responsibilities more properly to contribute to the building of a beautiful China.

China Coal Energy's Spirit Dedication, Integrity, Innovation and Forerunner

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

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

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

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

China Coal Energy's Core Values Scientific Development, Safety and Efficiency as well as Harmony and Win-Win Situation

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

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

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

Strategies of the Company



Under the new situation of China's economy and energy development, the Company, undertook the task of making centrally-administered SOEs stronger, bigger and more excellent, pursued supply-side structural reform and high-quality development, upheld the work principle of "maintaining stability while making progress" and adhered in the strategy of turning into an international engineering contractor and construction service provider on the principle of the 19th CPC National Congress as its guideline. It also followed new thinking, concepts and requirements in new era, redefined development strategy and thinking, focused on priorities and improved weakness and fostered strengths. On the basis of boosting steady growth, it also enhanced its core competitiveness so as to be more efficient, vital and secure and bigger with higher quality and profit.

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

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

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

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

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

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

Development objectives: Thanks to organic growth and external expansion, the Company will improve key business segments, scale up operations, enhance profits, and form a development landscape in which its key businesses boast strengths and great synergies, and are sustainable and risk-resistant to lay the foundation to turn into a top all-around clean energy provider and energy service provider with global competitiveness.



Corporate Governance

Regulated Operation

Governance structure. The Company has established a corporate governance structure comprising the Shareholders' general meeting, the Board, the Supervisory Committee and the management team in accordance with the provisions of relevant laws and regulations including the PRC Company Law and the PRC Securities Law, so as to establish a check-and-balance mechanism with clear delineation of rights and responsibilities and standardised operation among the authoritative, decision-making and supervisory bodies and the management team. The Company has formulated a series of rules and regulations such as "Articles of Associations", "Rules of Procedures of Shareholders' General Meetings" and "Rules of Procedures of the Board of Directors". During the reporting period, there is no significant difference between the Company's corporate governance standards and the requirements prescribed by China Securities Regulatory Commission.

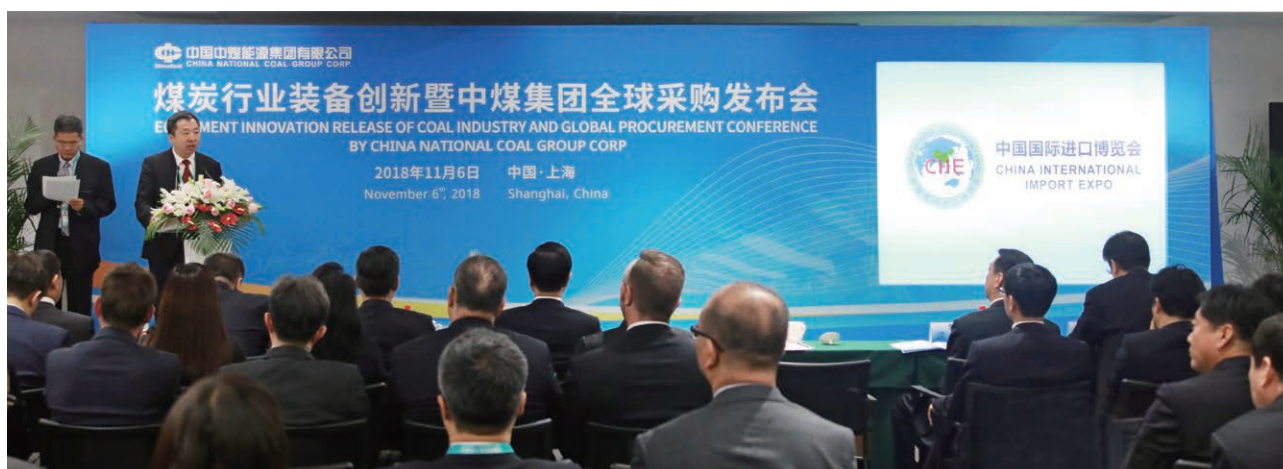
Standardised operation. The Company has further standardised the procedures of deliberation and decision making by means of institutional arrangement. The Company's major business matters are submitted to the General Meeting for voting after being discussed and voted by the Board. When the Board decides on the major issues such as the Company's reform and development direction, the main objectives and tasks and the key work arrangements, it should first listen to the opinions of the Party organisation, so that the Party organisation plays leading and political core roles. The Board has overall responsibility for the remuneration and performance evaluation of the senior management.

The Supervisory Committee is accountable to the Shareholders' general meeting and monitors the daily operation activities and the duty performance of the directors and executives according to the Articles of Association and the relevant laws and regulations. Under the Board, five special committees are established, namely audit and risk management committee, remuneration committee, strategic planning committee, safety, health and environmental protection committee and nomination committee. Full play is given to the role of the special committees so that major decisions will be discussed first by the special committees before they are submitted to the Board for consideration. Independent directors of the Board of China Coal Energy account for one third of the membership of the Board, which meets the requirements of the regulatory authorities. A work mechanism has been established for independent directors to conduct fieldwork research. The Board co-ordinates the arrangement of a yearly plan for Board meetings, adopts innovative forms of meeting and ensures that independent directors can attend meetings on time and fully express their views. In 2018, China Coal Energy organised and convened two General Meetings, five Board meetings and four Supervisory Committee meetings. The Board of China Coal Energy has stepped up scientific decision-making and supervision of the Company's major matters such as development strategies, investment plans, financial management and production and operations, as well as guides and promotes corporate reform and development, thus effectively enhancing the Company's core competitiveness and sustainability.



Board Meeting of China Coal Energy

Corporate Governance



Global Procurement Conference of China Coal Energy

Rule of law. Adhering to the principle of “managing according to law and operating in compliance with regulations”, the Company comprehensively established its corporate image as a legal person under the rule of law, a business entity of integrity and law compliance and a market entity with fair competition, strictly observed national laws and regulations and government regulatory requirements and maintained the credibility of the Company. A Plan for Managing According to the Law and Operating in Compliance with Regulations was formulated to set up specialised measures from four aspects, including establishing the standards for legal risk management, enhancing the Company’s compliance management, promoting legal management system thoroughly and improving the Company’s capacity of managing according to law. The Company strengthened the establishment of general legal counsel system, resulting in the establishment of general legal counsel system in all the major subsidiaries of the Company, thus ensuring the corporate operations in compliance with the applicable regulations.

Internal Control

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

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

Risk management. Focusing on “target, risk and control”, the Company adopted the approach of “centralised planning and graded implementation”, organised regular risk assessments and self-assessments of internal control and sorted out the weaknesses and potential risks during the process of operational management of the Company seriously. Based on the result of risk assessments, the Company developed corresponding risk management strategy, solution and countermeasures and prepared the Comprehensive Risk Management Report of China Coal Energy Company Limited for 2018, in line with the strategic development targets and major tasks for the year. The Company eliminated possible hidden danger and prevented potential risks effectively by organising risk assessment of significant matters.

Supply chain management. The Company performed its duty for win-win development with partners seriously and attached importance to the management of supply chain responsibility to improve the responsibility awareness and capability of supplier and pursue mutually beneficial cooperation, thus realising the win-win development with the supply chain partners. The Company continuously improved the supplier management system through reducing the environmental and social risks of supply chain as well as promoting the establishment of its unified administration and graded responsibility system for the full life circle of suppliers, such as admission, authentication, and performance appraisal and exit. The Company built up a headquarters supplier resource pool that can be inquired and shared online across the Company on real time basis, evaluated the headquarters suppliers, and put the suppliers for its subordinated enterprises on record, with evaluation covering 100% of suppliers. Insisting on the responsible procurement policy, the Company continuously improved the institutional system of tender procurement, called for fair competition, conducted “Sunshine Procurement”, resisted corruption and commercial bribery, encouraged and supported the procurement of responsible products and services, and facilitated the improvement of awareness and capacity of suppliers in fulfilling responsibilities. In 2018, there was no quality complaint about the Company’s centralized purchase, no violation of regulations regarding centralized purchase at the headquarters and no complaints from suppliers. In 2018, China Coal Energy attended the first China International Import Expo (CIIE) and invited nearly 80 persons from 22 foreign investors and joint ventures to attend the event and sign contracts on the site. During the expo, it held an event on “equipment innovation for coal industry and China Coal Energy’s global purchase” to fuel China’s further opening-up of the coal industry.

Anti-corruption. China Coal Energy has always integrated anti-corruption work into the general course of enterprise reform and development, and in every aspect of its production and operation, to provide a strong and effective safeguard for the healthy and sustainable development of enterprises. The Company strictly abides by relevant laws and regulations such as the Anti-Unfair Competition Law of the People's Republic of China and the Anti-Money Laundering Law of the People's Republic of China and has zero tolerance for unlawful acts such as bribery, extortion, fraud, and money laundering. In 2018, the Company fully implemented the political responsibility of practising strict Party self-governance, took the lead and made the subordinates follow suit and passed on the political pressure level by level, to promote strict Party self-governance in a comprehensive and in-depth manner, and to extend it to the grassroots level. The Company implemented seriously the accountability system for the promotion of integrity as the Party conduct, and signed responsibility undertakings at each level. The Company formulated systems against corruption and the systems have been sounder. It revised the "Measures for Administration of Tender" and the "Measures for Administration of Material Resource and Production Service Procurement"; strengthened monitoring over the whole process of tender such as tender plan, method of tender, review of bidding documents, expert selection, and evaluation and decision of tender; it formulated the "Measures for Administration of Integrity and Compliance among Suppliers" that makes a list of negative behaviours for supply and demand sides; the Company signed the "Mutual Assurance Agreement on Integrity of Supply and Demand Sides" while forging a business partnership with suppliers to guide and contain both parties to boycott corrupt commercial behaviours. The Company prioritized disciplines and rules and investigated cases immediately even though they are small and imposed strict punishments. The Company investigated some cases with violations of regulations and disciplines, creating a deterrent so that employees dare not become corrupt. The Company stressed disciplines by requiring employees to make a commitment on upholding integrity and having talks with them, conducting integrity education, alert education and discipline education, holding

meetings on education at different levels, organizing employees to watch educational film about combating against corruption and upholding integrity, and using cases around them to alert employees to strengthen their thinking of not becoming corrupt.

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

Transparent operation. The Company formulated the information disclosure work scheme and clarified the principles, contents, procedures and work plans for information disclosure. Aiming at hot issues that staff and society paid close attention to, such as recruitment, procurement, bid invitation and cadres appointment, the Company insisted on plan openness, process openness and result openness, accepted social inspection and prevented black case work. The Company insisted on the open system of factory affairs and made regularly disclosure on significant matters, cadres' position-related expenses and financial affairs through the meeting of employee representatives, bulletin board and suggestion box, encouraging staff to offer advice and suggestions and participate in corporate governance. The Company disclosed the operating and developing situation and actively responded to the concerns of the society through media such as company website, newspaper, CSR report and annual report. The Company set up press spokesman system to answer the questions raised by media and investors, thus building a good communication mechanism.



Integrity Education Activity of China Coal Sales Company

Management of Social Responsibilities

Work System of Social Responsibilities

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

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

Indicator system. A social responsibility indicator system comprising 6 types of indicators namely economy, safety, environment, innovation, staff and community has been preliminarily set up by the Company, and almost 100 specific indicators have been established. The above system has generated extensive historical data for social responsibility work, and secured the comparativeness

of the indicators set out in the CSR report, laying an assessment foundation for incorporating social responsibilities into corporate management and operations.

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

Stakeholder Communication

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

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

Identification of Social Responsibilities

Analysis of essential topic

Impact on and attention of stakeholders



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. China Coal Energy established a learning and communication platform for social responsibility, carried out training activities in a systematic and hierarchical manner through various forms internally, including building intranet, holding meetings, inviting experts and starting columns for social responsibility, and actively participated in a range of professional training courses externally to broaden its horizons and raise awareness, including the social responsibility training session organised by the SASAC of the State Council, the seminar of social responsibility report and forum held by relevant professional organisations.

Promoting the practice of the social responsibility. At the beginning of 2018, the Company held the work meeting of social responsibility so as to listen to each work unit’s report of social responsibility work in 2017 and arrange the major social responsibility tasks of 2018. Through carrying out the voting of excellent cases of the social responsibility, the Company promoted the awareness of social responsibility and practical ability of the subordinate enterprises, and encouraged qualified major subsidiaries to publish social responsibility report regularly. By strengthening social responsibility research, and exploring the social responsibility concept, connotation, target and pathway of the coal enterprises, the Company promoted its social responsibility to be implemented more effectively in the subsidiaries.

Enhancing communication about social responsibility. Since 2009, when the first social responsibility report was issued, China Coal Energy has issued social responsibility reports for 10 consecutive years, and was awarded the title of “CCTV Finance 50 Index • Top 10 Companies of Social Responsibility” for twice. In 2018, China Coal Energy won the honour of Top 100 China’s Listed Companies for Social Responsibility Construction and the Pingshuo Group was rated as 2018 Enterprise of Social Responsibility in Environmental Protection (2018年度環保社會責任企業) for its social responsibility case Mine Reclamation for Rebuilding Beautiful Territories (礦山復墾再造綠水青山) winning the 2018 Gold Award for Environmental Protection of Golden Flag Award (2018年度金旗獎環境保護金獎).



2018 Gold Award for Environmental Protection of Golden Flag Award



Improving Quality While Maintaining Stability, Promoting Reform and Innovation

Scientifically Organising Production

Improving Marketing System

Providing High Quality Products

Improving Quality and Efficiency

Performance in Economic Responsibilities

Economic Responsibilities





Comments from Stakeholder

"In 2018, we experienced the flood and dry seasons as well as severe weather such as rain and snow and low temperatures and faced coal shortage at one time, China Coal Energy provided us with coal to guarantee continuous and steady coal supply in Hunan."

Hunan Branch,
Huadian Group Beijing Fuel Logistics Co., Ltd.

In 2018, China Coal Energy implemented the decisions and deployment by the CPC Central Committee, the State Council and the State-owned Assets Supervision and Administration Commission by pushing ahead with the supply side structural reform, seizing favorable market opportunities, adding stress, riding the tide, getting united and working hard, thus seeing a sharp rise in operating results and an improvement in quality of operation, making headway in key work, garnering excellent results in reform and innovation and a good momentum in the Company's operation and development. During the reporting period, the revenue of the Company hit new a high of RMB104.1 billion, up 27.8% over the previous year, while the total net profit stood at RMB8.79 billion, up 49.1% over the previous year and hitting a new high in recent years.

Scientifically Organising Production

The Company overcame the difficulties such as complex production conditions, intense production succession, etc. Adhering to the problem-orientated principle, the Company scientifically organised production, effectively released advanced production capacity, continuously optimised production structure, and strived to stabilise and increase production volume. During the reporting period, the commercial coal output was 77.13 million tonnes, of which the thermal and coking coal outputs reached 68.22 million tonnes and 8.91 million tonnes respectively. Pingshuo Company made all efforts to optimise production capacity of open-cast mines and achieved a record-high stripping volume, and took its advantages in intensive processing to continuously optimise product structure and stabilise coal production volume. The Company proceeded with the relocation of villages smoothly, which provided a strong guarantee for its steady production in the next few years. Shanghai Energy Company planned for production in advance by optimizing its production system, leveraging technologies to generate revenue and improving daily production and drilling depth, thus achieving steady production and seeing a sharp rise in revenue over the previous year. China Coal Huajin Company made a proper planning for production and leveraged revenue and capacity, thus witnessing a steady production and operation and new highs in comprehensive revenue. Northwest Energy Company put Nalinhe No. 2 Coal Mine and Muduchaideng Coal Mine into production, leveraged its cluster advantage of 10 million tonne mine industry, improved the coal washing process, and enhanced production efficiency and the output of clean coal.



Coal Production

The Company continued to strengthen refined management of coal chemistry production, improved production process, and strengthened production organizations and equipment start-up, with main economic and technological indicators maintaining their leading position internationally. The Company promoted differentiated production and new product development, with the leading role in the industry and brand impact being on the up. The olefin project in Yulin strengthened production operation and management, with equipment's steady operation ratio and load rate hitting its best level and daily average polyolefin output surpassing 2,160 tonnes. Tuke Fertiliser Project strived for technological innovation and began the production of polyglutamic acid urea, further diversifying our product range. Mengda Engineering Plastics Project has maintained stable operation with high load ever since it formally began production in 2017, solidly pushing forward production differentiation and significantly increasing the benefit-making ability of high-end products.

The Company boosted the transformation and upgrade of the coal equipment manufacturing industry, improved accessory service and non-coal product revenue while consolidating its traditional key businesses, with the proportion of non-coal revenue representing 23% of the total revenue. It further enhanced intelligent manufacturing and production efficiency, pushed ahead with lean management, improved production process, and accelerated the delivery to ensure users' needs are met. During the reporting period, the Company registered RMB6.95 billion in coal mining equipment output, up 34.4% over the previous year. Its total coal machine output stood at 319,000 tonnes, up 22.9% over the previous year. Specifically, main coal machines reached 15,139 units (sets), up 18.5% over the previous year.



Improving Marketing System

In 2018, the Company strengthened production and marketing integration, took the initiative to promote the signing and performance of medium and long-term contracts and strengthened its ability in market guarantee. It followed market tempo, improved market deployment and marketing systems, and enhanced market supply and coal sales. During the reporting period, its total commercial coal sales amounted to 155.65 million tonnes, up 21.3% from the previous year.

The Company fully leveraged the strength from centralized sale of coal chemical products, strengthened market development, made an accurate judgment of market situation, flexibly adjusted sales tempo and improved logistics guarantee system to ensure smooth production and sales. It launched an innovative transportation mode, completed its deployment of logistics in the market, cut logistics costs, kept an eye on market changes in China and overseas, promptly adjusted sales strategies, and improved the market share and the brand influence of China Coal Energy. During the reporting period, the Company registered 1.467 million tonnes in polyolefin sales and 1.929 million tonnes in urea sales. The Company put its subsidiaries' geographical advantage and synergy into full play so as to expand internal procurement and supply of methyl alcohol. It leveraged the industry chain's synergy to enhance the ability of coal chemical products to generate revenue.



Coal Sales

The Company captured the market opportunity from the increase of advanced coal mine capacity and the demand in coal mine equipment to improve sales strategies and enhance performance in the premium coal mine equipment market. During the reporting period, the accumulative contract value of coal mine equipment surged 27.6% over the previous year



Case

China Coal Energy Company Limited, Jinbei Sales Branch's customer services were praised

At the end of 2018, China Coal Energy Company Limited, Jinbei Sales Branch received a letter of thanks from Shanxi Branch of China Datang Corporation Ltd. for expressing a gratitude to Jinbei Sales Branch's key role in performing tasks by Shanxi Shentou Power Generating Company Limited in safe production and supply guarantee as well as price control and giving fully recognition of what direct contact persons had done during business alignment during its win-win cooperation with Jinbei Sales Branch. Shanxi Branch of China Datang Corporation Ltd. also expressed its intention to continue their cooperation and achieve a win-win result and mutual development in 2019.

In 2018, Jinbei Sales Branch followed the direction of "promoting sales with services and winning market with quality" by seizing main power plants, a key user during sales of coal, and sorting out and improving the communication mechanism with power plants. By holding regular and non-regular meetings and creating a WeChat group for business communication, the Company has created a "zero-delay" communication channel

by promptly addressing problems in business operations and ensuring all matters are managed by dedicated persons, thus gaining universal acclaim from customers.

In 2018, due to regional resource shortage, the Company has a small capacity in producing self-produced coal in early 2018. In August, when the use of coal peaked, there was a shortage in supplying coal to power plants. To meet the needs of customers, Jinbei Sales Branch came up with measures in supplying coal to power plants by communicating with producers to increase the supply of self-produced coal to power plants. Meanwhile, it set up a team led by executives of the sales department to find resources in the market. Following several days of efforts, it secured five excellent suppliers. By supplying coal purchased from other companies as well as its own resources, it has guaranteed the safe production of power plants while maintaining its market share. It supplied 1 million tonnes to Shentou's thermal coal market in the full year.

Providing High Quality Products

The Company strictly abided by the Product Quality Law of the People's Republic of China and other laws and regulations, built the awareness of "quality first", conducted in-depth comprehensive quality management to improve the quality of products and services. The Company adhered to the principle of honesty and trustworthiness and ensured that the advertising contents of coal mining equipment and other products were true, and that the labels of coal chemical products were regulated according to requirements, on which the information was true and accurate. Pursuing the "market-oriented and client-focused" operation philosophy, the Company actively understood the problems that customers had in the process of purchasing and using products such as coal, coal chemical products, and coal mining equipment, and provided solutions to customers in a timely manner. The Company also regulated customer information management and laid emphasis on protecting customer privacy.

Improving coal product quality

The Company further improved coal quality through perfecting coal quality management system, putting more efforts on the evaluation of coal quality management and inspection and optimising product structure. The Company made great efforts to improve the ability to optimise efficiency in the process of sales by enhancing quality control of coal in the entire production process, strengthening coal blending process, improving product quality and promoting the sales of self-produced coal.

Improving Brand Influence of Coal Chemical Products

Fully taking advantage of the centralised sales of coal chemical products, the Company flexibly adjusted the pacing of sales while taking into consideration of the overhaul plan of coal chemical facilities, ensured the continuity in product supply and stabilised its market share. The Company made ongoing improvement on the market structure and marketing strategies and implemented complementation between the low and peak seasons, increasing the market share and the brand influence of China Coal. Keeping abreast with the changes of the market, the Company diversified

the product mix, strengthened the transport capacity assurance and lowered the logistic cost in order to ensure smooth coordination between production and sales. The sales and profits of major chemical products were increased significantly.

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

Improving Service Quality of Coal Mining Equipment Products

China Coal Equipment Company conducted strict management of product quality, reinforced control over the production process, offered rewards and punishment on quality, and enhanced administration of quality. In 2018, China Coal Equipment Company's main producers passed the international welding quality management system, the review of QEO certification system and CNAS' laboratory accreditation, and the annual review of EN1090 certification for steel products, with improved ability in quality management and standard operation and in quality guarantee during production and manufacturing. In 2018, China Coal Equipment Company's quality loss dropped 18.4% from the previous year. All management and technology service staff visited users on site to understand the product running conditions so as to proactively improve after-sales services and product quality. They conducted customer satisfaction surveys, knew and registered users' main machines, sorted out statistics such as equipment model, operating conditions, user feedback, rectification plan, persons-in-charge and record of return visits, created a ledger on after-sale services for internal users, regularly followed users' feedback, supervised the improvements, and further enhanced services.



China Coal Large Granular Urea Products



Improving Quality and Efficiency

The Company continued to optimise coal mine technology to reduce working face, footage and needs for more workers, and increase the recovery of coal, achieving fine economic benefits. Sales Company strengthened the refined management of all supply chain links, generating revenues through measures including outsourcing coal blending, obtaining refunds from port charges, increasing the overflowing coal tonnage as well as processing and sales of premium and lump coal.

Coal chemical enterprises worked to improve steady, full and high-quality running, with the output of chemical products hitting record highs. Olefin equipment continued to run in high load, with polyolefin's unit consumption of methyl alcohol and ammonia's unit consumption of coal remaining ahead in the industry.

China Coal Equipment Company capitalized on the intelligent manufacturing capacity of automatic welding robots, numerical control automatic production lines, centrally controlled programming blanking and intelligent logistics storage to improve processing quality and production efficiency. It continued to advance lean management, optimize production organizations and technological process, cut the period in preparing drawing and process, reduce the vacancy of people and machinery, and adopt the mode in which one person oversees the operation of multiple machines, thus significantly improving per capita efficiency and boosting the total industrial output by 34%.

Power enterprises launched an initiative to improve quality and efficiency, made separate decisions for each plant to help them turn into profit, improved the proportion in the blending combustion of low-quality coal, and cut fuel costs, thus making a profit in the power segment.

Performance in Economic Responsibilities

Name of Indicator	2016	2017 (Restated)	2018
Production volume of commercial coal (10 thousand tonnes)	8,099	7,554	7,713
Sales volume of commercial coal (10 thousand tonnes)	13,235	12,829	15,565
Production volume of polyethylene (10 thousand tonnes)	36.1	49.8	74.1
Production volume of polypropylene (10 thousand tonnes)	34.9	47.8	71.9
Production volume of urea (10 thousand tonnes)	197.5	199.6	185.6
Production volume of methanol (10 thousand tonnes)	65.1	62.5	72.2
Production value of coal mining equipment (RMB100 million)	32.2	51.7	69.5
Total assets (RMB100 million)	2,418.87	2,519.23	2,646.58
Net assets attributable to the equity holders of the listed company (RMB100 million)	859.47	893.02	921.42
Revenue (RMB100 million)	606.64	815.13	1,041.40
Total profit (RMB100 million)	33.73	58.96	87.92



Life is the Most Valuable, Safety is of Vital Importance

Implementing Safety Production Responsibilities
Enhancing Construction of Safety Infrastructures
Strengthening Safety Supervision and Inspection
Improving Safety Guarantee Capability
Performance in Safety Responsibilities

Safety Responsibilities





Comments from Stakeholder

To achieve safe management involving all staff during the whole process, China Coal Energy promoted the self-management model in which "all persons are group leaders" to ensure the standard system on coal mine safety production is implemented in every team and position.

Huang Yuzhi, Deputy Director of the Ministry of Emergency Management, and Director of the National Coal Mine Safety Administration

In 2018, the Company implemented China's requirements in safety production, deployment and complied with laws and regulations such as "Production Safety Law of the People's Republic of China" and "Law of the People's Republic of China on the Prevention and Control of Occupational Diseases" under the guidance of safety production and deployment under the guidance of "Opinions of the Central Committee of the Communist Party of China and the State Council on Promoting the Reform and Development in the Field of Safety in Production" It beefed up safety management, consolidated the foundation of safety, strengthened risk control, focused on the performance of responsibilities, and made considerable progress in safety production by eliminating production safety accident.

Implementing Safety Production Responsibilities

Improved responsibility system

The Company formulated measures on evaluation of safety responsibility and conducted safety evaluation, with its safety management system covering the whole company. All entities within the Company revised the safety production responsibility system of 1,719 positions and included the accountability system into the safety training plan, with improved awareness in safety responsibility.

Implemented safety guarantee

The Company issued measures for administration of safety guarantee to assign safety responsibility to relevant persons-in-charge. Persons-in-charge of relevant enterprises are responsible for 18 mines (plants) and persons-in-charge of mines (plants) are responsible for 201 groups. They hold analysis meetings on safety guarantee on a monthly basis and attend meetings hosted by entities of safety guarantee on a regular basis, and vigorously promoted the implementation of the safety responsibility.

Strict punishment and evaluation

The Company, according to the principle of imposing strict punishment immediately in case of an accident, revised its measures on investigating the responsibilities of accidents, and proposed for the first time that the mine manager will be removed from his/her position if a death takes place in his/her mine. It offered big rewards and strict punishment and included safety reward, standard safety production standardization and safety guarantee into the scope of safety evaluation to dynamically boost the performance of safety responsibility.

Enhancing Construction of Safety infrastructure

Remained ahead in China's standardization

The Company continuously advanced standard safety production. Shanghai Energy Company held a meeting to boost standard safety production and make the best use of its model role. Ten producing mines reached national I mines in terms of standard safety production, of which all producing mines from Shanghai Energy Company reached national I mines in terms of standard safety production.

A steady rise in process and equipment level

The Company replaced people with machines and cut the headcount with automation by speeding up the application of machinery, information and automation and intelligent equipment. It implemented measures to improve the system and cut level, heads and staff, improved and streamlined its mine production system, and improved its ability in safety guarantee. In the full year of 2018, it completed 675 upgrade projects for systems such as ventilation and prevention of gas, dust and fire of coal mines, and electrical and mechanical transportation and power supply, phased out and upgraded 2,846 units of old equipment, repaired 24,500 meters of dilapidated roadway, and significantly improved working environment. Four mines, including Huajin's Wang Jia Ling mine, Shanghai Energy's Yaoqiao mine, Zhong Tian He Chuang's Mekeqing mine and Northwest Energy Company's No. 2 well in Nalinhe, started intelligent emission.



Case

Shanghai Energy promoted standard safety production

On June 12, China Coal Energy held a meeting at Shanghai Energy to promote standard safety production, during which Shanghai Energy shared its experience as a model company.

Shanghai Energy has long regarded standard safety production as its foundation, lifeline and a project to generate benefits, focused on "image" and "actual progress" as well, pursued excellence, adopted standards that have higher requirements and stricter than existing standards, and reached the standards.

It implemented standards efficiently. Shanghai Energy not only conducted civilized production but also focused on quality. To enable it to stand up to inspections, investigations, inquiries and assessment, it promoted standard work procedure for positions, transformed safety, work and operation instructions and safety production system into work standards, formulated specific regulations for 218 types of work and 84 positions in the pit, and set strict procedures and standards on work of the staff to ensure they act consistently with or without leaders and inspections and whether or not they reach standards.

It created high-level standards. Shanghai Energy has been promoting delicacy management, integrating standardization into mine design, production, construction and site management as well as engineering, work and management quality, and improving standardization. It continuously increased investment in safety, conducted 583 upgrade projects such as coal mine ventilation and prevention of gas, dust and fire and power supply and distribution, modernized key equipment such

as extraction and transportation equipment, promoted the application of new technologies, process and equipment, and ameliorated production system and production and working environment in light of its actual production.

It enhanced standards with high requirements. Shanghai Energy reinforced its foundation, grassroots and basic skills, promoted standards for technologies, management and position, and improved safety production standards with new standards. It conducted inspections of mine standardization work on a month and quarter basis in dynamic form and static form respectively and ordinarily launched special inspections of sites to enhance the level of standard safety production.



Standardization of safety production



Strengthening Safety Supervision and Inspection

Intensified safety check

It intensified safety check by conducting safety check during special periods such as the Spring Festival, China's "Two Sessions" and the National Day Holidays and launched special inspections such as "coal mines' ventilation and prevention of gas, dust and fire," water prevention and control, rock burst and roofs to realize full coverage of safety check. All entities conducted safety check in key areas, parts and steps as well as site inspections.

Kept a tight control over major safety risks

It prevented and controlled major risks by conducting dispatch, inspections, consultations, and analysis on a week, month, quarter and year basis, respectively. It has established a three-level consultation mechanism by organizing consultations for over 1,200 times and adhering in business consultations and inspections and fix of hidden risks to effectively control safety risks. The Company designated all heads of departments to keep an eye on 40 high-risk tasks and 861 priorities on site control in the pit and on the ground during the whole process; Northwest Energy Company's regulation focused on unreliable persons and sites and standard cycle operations.



Safety Inspection

Improving Safety Guarantee Capability

Strengthened safety education and training

It speeded up the development of its key team. Companies such as Pingshuo Group, Northwest Energy Company and Zhong Tian He Chuang Co. fostered their team of 1,161 persons through social recruitment, training and transfer. It strengthened safety training by holding 4,240 training sessions for all staff. The Company held two off-job training sessions for 140 chief engineers of subordinate enterprises, director generals of work safety bureau and mine managers. Huajin has created a question bank for 38 types of work and enhanced employee training.



Safety Training

Improved emergency response capacity

Shaanxi Company boosted the construction of a national dangerous chemical emergency rescue base in Yulin and completed its acceptance. All entities organized 1,562 emergency drills and skill competitions, with the involvement of 35,000 people. It revised and formulated 428 emergency plans and made and issued over 30,000 cards on site disposal and emergency work manuals. Shanghai Energy Company's rescue team was named as a national mine emergency rescue team, while Huajin Company's rescue team was evaluated as a national Class A rescue team.

1,562 activities including emergency drills and skills competitions

35,000 attendees

428 revised and new emergency plans

over
30,000 handling plan cards and emergency manuals



Safety Emergency Drill

Strengthening the construction of safety culture

With special activities such as “Warning Campaign in March”, “Safe Production Month” and “Hundred-Day Safety” as the platform, various kinds of safety preaching activities such as lectures, “micro-classroom” and “working team classroom” were held and extended to working teams to promote the safety awareness of all employees. The Company convened safety promotion meetings for young employees to fully mobilize the enthusiasm of young people in participating in safety management. China Coal Huajin Company carried out activities in the party member responsibility areas, calling on party members to show their identities, clarify their responsibilities, be a role model, and ensure security. China Coal Mengda Company carried out in-depth activities such as “party member accountability system”, “party member monthly investigation” and “zero action”.

Performance in Safety Responsibilities

Safety Investment in 2014-2018

Name of Indicator	2014	2015	2016	2017	2018
Safe Production Expenditure (RMB100 million)	17.2	16.39	14.3	15.96	13.75

Mortality rate of coal production per million tonnes in 2012-2018

Category	2012	2013	2014	2015	2016	2017	2018
National Coal Mines	0.374	0.293	0.257	0.162	0.156	0.106	0.093
China Coal Energy	0	0	0.013	0	0.017	0.026	0



Building a Green China Coal Energy with Low-carbon Development

Constantly Controlling Pollution and Reducing Emissions

Saving Energy Resources

Improving Ecological Environment

Performance in Environmental Responsibilities

Environmental
Responsibilities





Comments from Stakeholder

“For more than 3 decades, China Coal Pingshuo Group has creatively implemented coordinated excavation technology of open-pit and underground mining, and this helps achieve green mining of black coal, raise the recovery rate of mining resources to 93%, and realise mine area’s transformation from single resource mining to green and ecological mining.”

Yang Jue, Reporter of Guangming Daily

Upholding Xi Jinping’s Thought of Ecological Civilization, China Coal Energy has conscientiously implemented the national policy on resource conservation and environmental protection and consciously practised the concept of green development. Through giving full play to the guiding role of green strategy, the supporting role of green technology and the leading role of green culture, it has taken the green mining, clean utilization and efficient conversion of coal as a foothold, continuously optimised the industrial structure, and made great efforts to press ahead scientific mining methods, efficient resource utilisation, clean production process and ecologicalised mining environment, so as to build a green “China Coal Energy” in an all-round manner.

Constantly Controlling Pollution and Reducing Emissions

The Company has strictly abided by relevant environmental protection laws and regulations such as the Environmental Protection Law of the People’s Republic of China, the Law of the People’s Republic of China on the Prevention and Control of Atmospheric Pollution, and the Water Pollution Prevention and Control Law of the People’s Republic of China, established and improved the “Green China Coal Energy” management and supervision system, laying a solid foundation for the management of energy conservation and environmental protection. The day-to-day analytical testing and monitoring on pollutant indices were improved, and supervision and inspection were normalised, ensuring the normal operation of environmental protection facilities and fulfilling the standard of pollutant discharging. Eleven enterprises of the Company are listed as key pollutant discharge units published by the competent environmental protection department of the government, involving coal excavation, coal washing, power generation, heat supply, new coal chemical industry and other industries, which are located in Shanxi, Inner Mongolia, Shaanxi and Jiangsu. In 2018, six enterprises under the Company were awarded Advanced Enterprise of Energy Conservation and Emission Reduction for Coal Industry (煤炭工業節能減排先進企業).

The Company’s emissions are mainly sulfur dioxide, nitrogen oxides, chemical oxygen demand, ammonia nitrogen and so on. In 2018, the Company produced 5,831 tonnes of sulfur dioxide, 6,301 tonnes of nitrogen oxides, 372 tonnes of chemical oxygen demand, and 23 tonnes of ammonia nitrogen, decreasing for three consecutive years as compared to the previous years.

Greenhouse gas emission

The Company has paid close attention to the latest developments in global climate change, actively responded to the Paris Accord initiative, strived to enhance its carbon management capabilities, and firmly made a clean, low-carbon transformation and upgrading. The affiliated companies are perfecting the carbon emission management agencies and functions, deploying professional management personnel, participating in carbon emission management and trading training, collecting basic data according to the national carbon emission data auditing guidelines, and improving the relevant ledgers. The greenhouse gas emitted by the Company is mainly carbon dioxide and methane. In accordance with the requirements of the Ministry of Ecology and Environment, the Company is conducting auditing on greenhouse gas data of 2018. After the auditing, the data needs to be inspected by government organizations at all levels for confirmation. Therefore, the data cannot be disclosed for the time being.

Hazardous waste

The hazardous waste produced by the Company is mainly waste oil, waste catalyst and waste hazardous chemicals. The Company controls pollution sources, keeps optimising technique and strengthens the control during the production process, whereby minimizing the generation of hazardous waste. The Company has constructed temporary warehouses for hazardous waste in accordance with Standard for Controlling Pollution by Storing Hazardous Wastes (GB 18597-2001). The site selection, design, operation, safety protection, monitoring and closure of storage facilities meet the relevant requirements and hazardous wastes are transferred to qualified units for disposal. In 2018, 24,000 tonnes of hazardous wastes, i.e. 3.7 kg hazardous wastes per RMB10,000 production output, were generated, down 18.9% year on year. 16,000 tonnes of hazardous wastes were under comprehensive utilisation and the rest were disposed of in a standardised manner.

Non-hazardous waste

The non-hazardous waste produced by the Company is mainly coal gangue. The company vigorously implements green coal development, popularizing the green mining technologies like mining without coal pillars and cut-and-fill mining according to local conditions and avoiding transporting gangue out of the underground, whereby reducing the generation of coal gangue from the source. Meanwhile, the Company has comprehensively utilised coal gangue for multiple ways, including power generation, production of construction materials, extraction of high value-added products, road backfilling and land reclamation so as to improve the resource utilisation efficiency. Solid waste which could not be utilised was disposed of in accordance with Standard for Controlling Pollution from Sites for Storing and Disposing of General Industrial Solid Waste (GB18599-2001). In 2018, the Company produced 23.01 million tonnes of coal gangue, with 0.3 tonne of coal gangue produced for one tonne of commercial coal on average, and with a comprehensive utilisation of 19.47 million tonnes and a comprehensive utilisation rate of 84.6%. The Company also produced 4.49 million tonnes of other non-hazardous wastes including coal fly ash, cinder and chemical waste, with a comprehensive utilisation of 2.41 million tonnes and a comprehensive utilisation rate of 53.7%.

Exhaust emissions

The main air emissions of the Company are soot, sulfur dioxide and nitrogen oxides and the implemented discharge standards are the Emission Standard of Air Pollutants for Thermal Power Plants (GB13223-2011) and the Emission Standard of Air Pollutants for Boiler (GB13271-2014). Following the Action Plan on Prevention and Control of Air Pollution issued by the State Council, the Company has strengthened its efforts in ultra-low emission transformation of coal-fired power plants, completing the ultra-low emission transformation of eight 1,240 MW generating units, which is equivalent to 73% of the Company's total installed capacity. It has also implemented environmental protection transformation or clean energy substitution for coal-fired industrial boilers and cleared small coal-fired boilers of enterprises in Beijing-Tianjin-Hebei and surrounding areas and in key areas of the Fen-wei plain, actively advanced the fully-enclosed transformation of coal storage yards, and accelerated the control of volatile organic compounds (VOCs). Consequently, the discharge of major pollutants was basically up to the standard, the emission intensity was greatly reduced, and the ambient air quality in the industrial and mining areas was further improved.

Waste water

The waste water is mainly discharged by the Company's coal mines and coal chemical companies. The main pollutants are chemical oxygen and ammonia nitrogen and the implemented discharge standards include the Emission Standard for Pollutants from Coal Industry (GB20426-2006), the Integrated Wastewater Discharge Standard (GB8978-1996) and level-III standard of the Environmental Quality Standard for Surface Water (GB3838-2002). In accordance with the characteristics and reuse ways of mine water, industrial waste water and domestic sewage, the Company adopted corresponding processing techniques to constantly improve the utilisation level of waste water on top of meeting emission standards. The coal chemical enterprises in the Ordos area under the Company implemented in-depth management and utilization of mine water,



Advanced Mine Water Treatment Project



set a foundation of “hazard-free, resourceful, reusable” for it and realized the “China Coal Character” of zero-emission of mine water and full-reuse of coal chemical industry. In 2018, the Company produced 34.75 million tonnes of mine water, with a comprehensive utilisation of 27.69 million tonnes and a comprehensive utilisation rate of 79.7%.

Emission-reducing measures

Under the principle of “controlling the increment, reducing the stock, focusing on key points and breaking through difficulties” for emission reduction, the Company strengthened the control of pollution sources and placed equal emphasis on clean production and end management, while focusing on improving the effectiveness of emission reduction. In 2018, the sulfur dioxide, nitrogen oxides, chemical oxygen demand, and ammonia nitrogen emissions of the Company decreased by 31.0%, 3.4%, 28.6% and 42.5% respectively year on year.

Depending on geographical location, the coal industry has actively enhanced various green mining technologies in respect of preserving water resources while mining, mining without coal pillars, semi-continuous manufacturing, mining without entry roadway excavation and “long-distance mining by short-distance filling” to achieve exploiting coal resources to its fullest extent with an aim to keep coal gangue in mines and achieve “zero” emission. The Company has also pursued full washing of raw coal and decreased the coal’s ash content and sulphur content to provide quality clean coal products. The Company’s recovery rate of mining area of coal mine, integrated energy consumption of raw coal production, and integrated utilisation rate of coal gangue continued to keep ahead in the industry.

To make scientific planning for resource utilisation of mine water in the Ordos area, the coal chemical industry, in strict accordance with the construction progress of the project and the environmental protection requirements of the “three simultaneous” system, has built a batch of primary, intermediate and advanced mine water treatment facilities and supporting water transportation pipe network with high standards, established a four-in-one water source recycling model integrating “underground filtration, ground treatment, chemical reuse and salt fractionation by crystallisation”, as well as constructed a comprehensive recycling system for water treatment with the main features of “reusing processed hyperhaline mine water as production water, recycling all coal chemical wastewater to realise zero emission, and recycling salt separating from strong brine by crystallization as resources”. Ordos Energy Chemical Company’s “zero coal chemical wastewater discharge” case was awarded the Certificate of the Award for Green Environmental Protection.

The electricity industry is based upon pit-month power generation, seeking clean, effective and recycled use and intensive development. In combination with the resource conditions, environmental capacity and delivery channels of the mining area, the most advanced energy-saving, water-saving and environmentally-friendly power generation technology has been applied and large-scale pit-month coal-fired power plants and low-calorific coal-fired power plants have been constructed to greatly hike the proportion of on-site coal conversion and promote integrated and synergetic coal-electricity development. The Company’s efforts also included the comprehensive upgrading

of energy-saving and emission reduction and the ultra-low emission transformation of coal-fired power plants. As a result, the Company’s power plants with a generating capacity of more than 135MW have all achieved ultra-low emissions, reducing the total amount of pollutants discharged.

Saving Energy Resources

The Company has strictly abided by the laws and regulations such as the Law of the People’s Republic of China on Conserving Energy, prioritised on energy saving, and strived to consume minimal energy in its production and operations. The Company’s each base, industry, enterprise and field have fully promoted the conservation of coal, electricity, oil and other energy resources. In 2018, the Company’s comprehensive energy consumption was 8.796 million tonnes of standard coal, of which the coal consumption was 8.19 million tonnes, the electricity consumption was 4.5 billion kWh, the diesel oil consumption was 0.2 million tonnes, the heat consumption was 2.6 million GJ, and the gas consumption was 13.77 million cubic meters. The comprehensive energy consumption and electricity consumption for raw coal production were 4.65 kg standard coal/tonne and 16.2 kWh/tonne, leading the rest of the industry.

Coal saving

The Company conducted overall planning for regional heating by using centralised heating of power plants, and recycle and use residual heat of water source heat pump, air compressor and flue gas by adopting the contract energy management model to replace coal-fired boilers. The Company strengthened the sealing measures in coal transportation and storage to reduce coal loss.

Power saving

The Company reformed belt conveyor for coal mine by frequency conversion, and eliminated and replaced backward electrical equipment to increase the energy efficiency. The Company also monitored the energy efficiency of electrical equipment and strengthened power usage management of on-peak and off-peak periods to reduce power costs.

Water saving

The Company strengthened the analysis and demonstration of water sources, water intake, water use and water saving measures. The industrial water-saving facilities and main projects of a construction project were designed, constructed and put into operation at the same time. The Company strengthened water-saving management throughout the production process, and implemented water-use plans and target management. The mine water was used in coal chemical production after advanced treatment. As a result, 17 million tonnes of fresh water was reduced in 2018. The total water consumption of the Company was 108 million tonnes in 2018, including 61.7 million tonnes of fresh water. 16.7 tonnes/RMB ten thousand of water consumption per RMB10,000 production output were generated.

Comprehensive energy saving

The Company promoted the use of waste heat and waste energy, and utilised mine water, ventilation air methane, gas drainage and residual heat of air compressor, solar energy, and air energy for heating or cooling according to local conditions to achieve efficient use of low-grade resources.

The Company organised the energy conversation promotion week and low carbon day activities to popularize the energy saving and low carbon concept across the Company. The Company also promoted green office by encouraging employees to start from small deeds like saving a kilowatt hour of electricity, a drop of water, or a piece of paper.

Packaging materials

The coal produced by the Company is bulk commodity and does not need to use packaging materials. Only a few coal chemical products use a small amount of packaging bags, which has little impact on the environment.



Energy Conservation and Low Carbon Promotion Activities

Improving Ecological Environment

The development of coal resources, especially open-pit mining, will inevitably disturb the environment, destroy the original landscape and have a certain impact on the ecological environment. The Company strictly abided by relevant laws and regulations such as the Water and Soil Conservation Law of the People's Republic of China and the Provisions on the Protection of the Geologic Environment of Mines, built coal gangue dumping site ecological environment demonstration project with high standards, organically combined green mine construction with production and construction, land reclamation, and water and soil conservation, and carried out ecological environmental management. Open-pit coal mining realised the integration of "stripping, mining, backfilling, and reclamation". Underground coal mines made full use of coal gangue to backfill the coal mining subsidence area, so as to fully recover and improve the ecological environment of the mining area and realise the coordination of environmental benefits, economic benefits and social benefits. Up to 2018, nine mines of the Company, including Antaibao Coal Mine of Pingshuo Group and Yaoqiao Coal Mine of Shanghai Energy, were determined as national pilot units for green mines. The social responsibility case Mine Reclamation for Rebuilding Beautiful Territories (礦山復墾再造綠水青山) of the Pingshuo Company won the 2018 Gold Award for Environmental Protection of Golden Flag Award (2018年度金旗獎環境保護金獎).



Case

Green Gene Takes Root in Pingshuo Mining Area

Standing high and overlooking, people can see that the Pingshuo mining area is covered by lush greenery. Thousands of Mus (1 Mu=666.67 square meters) of arable land are flat and connected together, and the endless dense forests and industrialised large mining areas complement each other, which is spectacular. This is a vivid manifestation of the organic integration of ecological environment and development. Traditionally, the exploitation of coal resources will inevitably have a certain impact on the ecological environment. In particular, high-intensity, large-scale open-pit mining will inevitably destroy the original landform. Thinking outside the box, China Coal Pingshuo Group has explored a mining model that pursues harmonious development of resource exploitation and ecological environment, and has explored a new path for open pit mining in China.

At the beginning of the construction of the mine, China Coal Pingshuo Group has developed a stringent "Chapter for Environmental Protection", sticking to the concept of development that emphasizes both mining and ecology. By applying a scientific mining method, maintaining the ecological environment of the mine, and attaching importance to the coordination of coal mining capacity and environmental carrying capacity, the open pit mine has blazed a trail for green mining and green development.

For more than 30 years, China Coal Pingshuo Group has creatively implemented coordinated excavation technology of open-pit and underground mining, and this helps achieve green mining of black coal, raise the recovery rate of mining resources to 93%, and realise mine area's transformation from single resource mining to green and ecological mining.

During the past 3 decades, China Coal Pingshuo Group was once granted the CEPF award, the "China's Most Beautiful Mine" award, the "National Advanced Enterprise in Energy Saving" award, the "Most Influential Green Enterprise Brand in China" award, the Gold Flag Award Environmental Protection Gold Award" and other awards; the Antaibao Mine was listed as a land reclamation field observation base and a land reclamation teaching practice base; with a green coverage ratio of more than 45%, the Pingshuo living area was named as one of the nation's 100 demonstration sites of civilized communities by the Publicity Department of CPC Central Committee.

Over the past 30 years, China Coal Pingshuo Group has produced 1.5 billion tons of raw coal, invested more than RMB5 billion in environmental protection and green reclamation, and rehabilitated more than 40,000 Mu of land (1 Mu=666.67 square meters), with the vegetation coverage rate in the reclamation area exceeding 95%.



Pingshuo Ecological Reclamation Area of China Coal Energy

Performance in Environmental Responsibilities

Name of Indicator	2016	2017	2018
Integrated energy consumption per RMB10,000 production output (TCE/ RMB ten thousand) ^{Note 1}	1.606	1.352	1.357
Recovery rate of mining area of coal mine (%) ^{Note 2}	91.5	91.5	90.9
Utilisation rate of coal gangue (%) ^{Note 3}	84.9	88.9	84.6
Utilisation rate of mine water (%)	79.6	61.2	79.7
Emission volume of sulphur dioxide (tonne)	11,019	8,451	5,831
Emission volume of NOx (tonne)	7,596	6,523	6,301
Emission volume of chemical oxygen demand (tonne)	849	521	372
Ammonia nitrogen (tonne)	83	40	23

Note:

1. As required by the superior management authority, the integrated energy consumption per RMB10,000 production output from 2016 to 2018 was calculated based on the price of 2015.
2. Recovery rate of mining area of coal mine included underground mines and open pit mines. The recovery rate of mining area of some production enterprises decreased year on year due to the coal bed structure in the mining area.
3. In 2018, the amount of gangues through washing of some enterprises increased.



Innovation-driven Development to Take the Lead in the Industry

Enhancing Innovation Ability

Strengthening Key Technology Research and Development

Deepening Innovation and Entrepreneurship Activities

Performance in Innovation Responsibilities

**Innovation
Responsibilities**





Comments from Stakeholder

“Taking root in the frontline of business requires a spirit of not caring about gains and losses, solving problems requires a strong sense of responsibility, and serving enterprises requires a youthful force that drives out evil and ushers in good.”

Cai Chuncheng, Winner of China Coal Energy
“Youth Science and Technology Award”

Technology innovation is the first motive force to realise high quality development. China Coal Energy has always placed the technological innovation in the core position of overall development of the enterprise. The Company focuses on the technological change trend of “safe, efficient, green and intelligent” modern coal energy, constantly deepening the reform of scientific and technological systems and mechanisms, building a scientific and technological innovation system that is compatible with world-class energy enterprises, and making breakthroughs in key core technologies, whereby the Company can gain new competitive advantages, transform new drivers of development, increase the contribution rate of scientific and technological progress, and strive to achieve the new change from the production-driven enterprise to the technology-driven enterprise.

Enhancing Innovation Ability

With the improvement of the independent innovation capability as the core, China Coal Energy has strengthened the innovation ability, enhanced the independent innovation ability, and promoted high quality development of the enterprise, whereby constantly reinforcing the economic innovation ability and competitiveness of the enterprise. With the demand of industrial technology as the orientation, the research institutions’ development of the key core technology as the lead, the breakthrough of the production line technology R&D of grassroots innovation studios as the foundation, demonstration bases for “mass entrepreneurship and innovation” and specialized maker space as main body of result incubator, and the strategic cooperation of industry-university-research as its support, China Coal Energy has built and improved the technological innovation system with the unique characteristics of China Coal Energy which combines independent innovation, collaborative innovation and mass technical innovation in one.

In 2018, China Coal Energy further strengthened the building of its R&D institutions, establishing China Coal Equipment Research Institute and building a gas research and treatment center and an anti-shock water control research center in the mine area of the Company. Hence, its technology research and development and technical service capabilities have been steadily improved, and an innovative model for the integration of technology research and development, process innovation and engineering technology services in the coal industry has been initially formed. Following the substantial breakthroughs in the construction of R&D institutions at the company level, China Coal Energy’s independent innovation capability has been further enhanced, and the overall efficiency of innovation combined with collaborative innovation and mass technological innovation has been substantially improved.



Technology Work Conference of China Coal Energy

As of the end of 2018, the Company has effectively enhanced R&D capability and constructed an autonomous, open and integrated R&D system comprising the following:

1 national energy mining equipment research, development and experiment centre

3 national enterprise technology centres

2 national energy technology and equipment assessment centres

5 provincial enterprise technology centres

3 provincial engineering research centres

1 provincial design and innovation centre

7 state-accredited laboratories

5 post-doctoral research centres

16 high-tech enterprises

3 "mass entrepreneurship and innovation" demonstration bases under China Coal Group

108 grassroots innovation studios



Case

China Coal Equipment Company: Technological Innovation Fuels Transformation

Focusing on its centric goal of achieving “smart mining, high-end upgrading, industrial transformation, and a leading role in the industry”, China Coal Equipment Company has sped up the transition from capacity-driven development to innovation-driven development, and pushed forward the construction of the innovation system.

Building a systematic platform. China Coal Equipment Research Institute was established, and high-caliber technical talents were recruited openly so that the research institute could serve as a national comprehensive laboratory for energy mining machinery and equipment. Efforts were made to press ahead the construction of the mass entrepreneurship and innovation demonstration bases, and to push forward the R&D of major science and technology projects, incubation and research of emerging products and application as well as promotion of technological achievements. As a result, the technological innovation mechanism characterized by “top-level design, bottom-level support, top-bottom integration, and all-member innovation” was further perfected. Up to now, China Coal Equipment Company has undertaken and implemented nearly 30 national research projects, such as National Hi-Tech Research and Development Program (863 Program), National Basic Research Program of China (973 Program), National Key Technology Support Program, and China Torch Program, providing strong technical support for the enterprise’s transformational and high-quality development.

Taking lead in high-end business. In the face of market and user demand, China Coal Equipment Company continued to improve the performance and technical level of its pillar products, and the market share of medium- and high-end products was thus

further consolidated and improved. China Coal Zhangjiakou Coal Mining Machinery Company independently developed a high-end intelligent scraper conveyor with the highest power in China. For this reason, it was able to capture all domestic orders for complete sets of conveying equipment with an excavation height of more than 8 meters and deliver the best performance in the industry with a daily coal output of 63,000 tons and a recovery rate of over 98%. Beijing Coal Mining Machinery Company won the largest domestic order for Brettis, with a contract amount of RMB150 million, and a batch of orders for high-end brackets with the highest-ever support height, with a contract amount of RMB160 million.

Creating an intelligent brand. China Coal Equipment Company is a domestic pioneer in implementing the R&D project on intelligent excavation of thin coal beds using coal cutter and coal planer. It once led and took part in the three-machine matching of over ten working surfaces such as Huangling working surface and Zhangji working surface, and nourished the strongest R&D and industrialization strength of complete intelligent mining equipment technology. China Coal Equipment Company is now concentrating its cutting-edge technical strength and is making all-out efforts to push forward the “Zhong Tian He Chuang intelligent mining working surface project” and the “Huajin Coking Coal intelligent top-coal carving project”. It will strive to further improve and perfect the intelligent system solution for the fully-mechanized coalfaces, through the integrated innovation and industrial application of banner intelligent technologies such as automation, informatisation and networking, forge the “China Coal Intelligentisation” brand, better deliver value for users, and lead the industry in innovation and development.



Intelligent mining working face

Strengthening Key Technology Research and Development

In 2018, China Coal Energy implemented 27 key science and technology projects and 205 enterprise-level science and technology projects through centering on R&D needs for security assurance, quality improvement, efficiency enhancement, transformation and upgrading, and green development.

It solved traditional technical bottlenecks in coal mining, completed the “underground coal mine mining technology without excavating entry roadways” project, the “green coal mining technology transformation” project and other projects, and initially formed a new scientific mining technology system that is safe, efficient, green and intelligent.

The research and application of key technologies for 100-million-tonne level mines in Inner Mongolia and Shaanxi contributed to the safe construction and safe production of the 10-million-tonne level mine groups. The technology on rapid excavation of coal roadway in the deep area of Mongolia and Shaanxi achieved a single-entry excavation distance of more than 1000 meters, raising the single-shift efficiency by 49.5%, cutting the per meter cost of support by 15.25%, and leading the development of the industry.

The impact pressure control technology for complex construction conditions and the gas control technology in high-gas mines provided technical support for the safe mining of coal mines.

Remarkable results have been achieved in the development of new coal chemical polyolefin products. A total of 8 new product grades of polyethylene and 10 new product grades of polypropylene were developed, significantly improving the competitiveness of new products in the market. The DMTO-based methanol consumption reduction technology enabled the Company to outperform its peers in terms of the methanol consumption for per unit output of diene.

Significant breakthroughs were made in the self-developed super-large intelligent complete set of equipment for fully mechanized coal mining, technologies on the monitoring and intelligent control of coal volume were at an internationally advanced level with an annual production capacity of more than 15 million tons, and commercialization was applied to many large coal companies in China. The 3x1600 intelligent complete set of scraper conveyor hit a new industry record of 63,000 tons of coal output per day. The domestic-made 8-meter ultra-cutting height coal shearer was put into use. The supporting conveyor equipment for mining without coal pillars completed pilot production, and the prototype of a scraper conveyor with intelligent variable frequency drive was successfully developed. New products such as intelligent roadheader and mine roadway repair machine met the market demand.

In 2018, the Company made a number of significant scientific and technological achievements, and its core technology competitiveness was thus further enhanced. This year, the Company won 21 industry science and technology progress awards and was authorized 155 patents, which witnessed the continuous improvement of the development of the core technology supporting industry.



Rock Burst and Water Disaster Prevention and Control Research Centre of China Coal Energy



Deepening Innovation and Entrepreneurship Activities

The Company promoted “mass entrepreneurship and innovation” work in three levels: key technology R&D of research institutions, production line technology R&D of grassroots innovation studios and innovation result transformation of “mass entrepreneurship and innovation” demonstration base, under guidelines of ensuring safety production, promoting quality and efficiency improvement, and supporting transformation and upgrade. It preliminarily formed a unique “mass entrepreneurship and innovation” model of China Coal Energy of practical innovation, platform incubation, base demonstration and industry promotion, featuring integration of innovation, entrepreneurship and benefit-making. It gave full play to the major role of enterprises in “mass entrepreneurship and innovation” and ensured differentiation in “mass entrepreneurship and innovation”, i.e. one program for one enterprise. The “mass entrepreneurship and innovation” demonstration base of China Coal Zhangjiakou Coal Mining Machinery Company, a subsidiary of the Company, was rated as a “mass entrepreneurship and innovation” demonstration project of the manufacturing industry by the Ministry of Industry and Information Technology, and it will be forged into a model base for innovation and entrepreneurship in the field of coal machinery and equipment within three years.

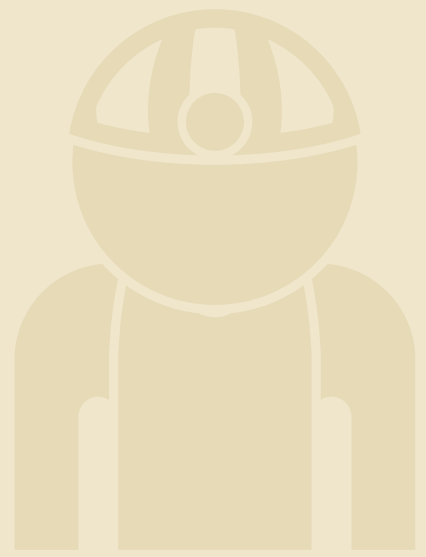
Together with the two newly built “mass entrepreneurship and innovation” demonstration bases of China Coal Huajin Company and China Coal Shaanxi Company, “mass entrepreneurship and innovation” demonstration bases have covered the overall layout of the Company’s major industries. In production enterprises, multi-level innovation studios were built at the national, industry, company and affiliate level under a model that highlights the leading role of outstanding technical talents, the participation of employees, innovation and effectiveness, inheritance and teaching, as well as online and offline combination, and with an aim of improving the ability of professional innovation. The Company built a platform for on-the-job creation and innovation of employees by cumulatively setting up 108 innovation studios. Nearly 1,000 outstanding “mass entrepreneurship and innovation” results with rich technological content, simplicity and practicality, fine application effect, and high promotion value were achieved, laying a solid foundation for technical research at the production sites. The Company’s six innovative projects were selected for the rematch of the 2018 Shining Star Innovation Competition for Central Government-led Enterprises, implicating greatly unleashed vitality of innovation.



Grassroots Innovation Studio

Performance in Innovation Responsibilities

Name of Indicator	2016	2017	2018
Technological investment (RMB100 million)	9.48	12.81	21.42
Number of technological advancement awards above industry level (items)	14	20	21
Number of patents (items)	190	143	155



Adhering to People-Oriented Philosophy and Sharing Results of Development

Safeguarding the Legitimate Rights of Employees

Promoting Career Development of Employees

Sharing the Results of Corporate Development

Performance in Employee Responsibilities

Employee Responsibilities





Comments from Stakeholder

"The relay baton of the times has been handed over to our generation, and the Company's growth depends on us. We must learn to be grateful and dedicated, make concerted efforts, form a strong synergy, and make contributions to the development of the Company."

Du Guangli, Chief Technician, Coal Mining Team 1,
Kongzhuang Coal Mine, Shanghai Energy Company

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

Safeguarding the Legitimate Rights of Employees

Regulating employment management

In strict compliance with the Labour Law of the People's Republic of China, the Labour Contract Law of the People's Republic of China and other relevant laws, regulations and policies, China Coal Energy insists on equal opportunities and regularised procedures in employment and has established a selection and employment mechanism that is fair, democratic and competition-based for picking the best talents. Announcements are made to public when candidates are selected, thereby ensuring transparency in information disclosure, recruitment process and result notification. The Company strictly abides by the "Provisions on the Prohibition of Using Child Labor" and other laws and regulations. When recruiting personnel, it strictly checks the identity card of the recruited personnel and verifies the age. In 2018, the Company found no employment of child labor or forced labor. The Company pays attention to employee diversity and equality between men and women, protects the rights and interests of female employees, implements equal pay for equal work for men and women, prohibits the employment of female workers in underground coal mines, and actively provides employment opportunities for ethnic minorities and veterans. China Coal Energy establishes and improves the system for leave and holidays to ensure that employees enjoy paid vacations, maternity leave, paternity leave and other statutory holidays in accordance with the law and that each employee has 8.5 days of paid vacations on average during 2018. The Company complies with the requirements of the relevant laws and regulations on the working hours, and if it is necessary for employees to work overtime, the Company will arrange other working days off to compensate for them or pay for their corresponding overtime according to regulations. As of 2018, China Coal Energy had a total of 42,194 employees, 7,924 of which were female employees, accounting for 18.78%. In 2018, China Coal Energy entered into employment contracts with all of its employees.

China Coal Energy enhances the competition-based system for picking the talents and vigorously promotes a market-oriented approach in talent acquisition and competition-based employment. In 2018, the Company's multiple departments including Safety and Health Department, Power Management Department and Chemical Sales Center launched a full open competitive employment and public recruitment. The subordinate enterprises, such as Pingshuo Group, Northwest Energy Company, China Coal Huajin Company, Shaanxi Company, Xinjiang Branch etc., practised open recruitment and achieved good results.

Facilitating democratic management

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

Placing strong emphasis on occupational health

The Company strictly abides by the Production Safety Law of the People's Republic of China and the Law of the People's Republic of China on the Prevention and Treatment of Occupational Diseases and other laws and regulations. Adhering persistently to the occupational health guideline of "prevention first, integration of prevention and treatment and comprehensive treatment", the Company has improved its prevention and control system in an ongoing manner, strengthened training and education, secured capital investment, enhanced source treatment and reinforced supervision and inspection, and as a result, the Company's occupational health work has been running effectively in accordance with relevant laws and regulations.

Fulfilling responsibilities as the main party, perfecting work mechanism. The Company perfected the construction of occupational health management system, established and completed occupational health management system and assessment assurance methods, fully fulfilling its responsibilities as the main party in occupational health as well as created a people-oriented safe work environment.

Strengthening education and training and improving protection ability. The Company promoted occupational health and carried out related education and training as well as strengthened its employees' awareness of occupational hazard factors, occupational diseases and its prevention and treatment, further improving its employees' self-protection ability.

Increasing capital investment, perfecting prevention and protection facilities. Each year, the Company allocates sufficient fund for the prevention and treatment of occupational hazards from its safety expenses and makes sure that capital is guaranteed, prevention and treatment measures are taken and on-site environment is improved.

Enhancing protection through physical checks, ensuring occupational health. The Company follows relevant rules strictly and offers employees engaged in work with occupational hazards health checks to keep them away from potential occupational hazards. The Company also insists on designing, constructing as well as producing and using occupational hazard prevention and treatment facilities for coal mine, electricity power and coal chemical construction projects and their main projects at the same time, protecting workers' occupational health.



Occupational health education and training



Case

China Coal Shaanxi Company Guarantees Employees' Occupational Health

China Coal Shaanxi Company has effectively protected the physical and mental health of employees by improving the construction of the occupational health management system, strengthening occupational health education and training, detecting occupational disease hazards, and conducting employee occupational health monitoring.

Strengthening occupational health training. New employees are educated on occupational health laws and regulations and management systems, informed of the occupational hazards, and offered training on knowledge related to occupational disease prevention and control. Employees are guided and supervised on correctly wearing and using labor protection products and mastering emergency rescue and self-rescue skills, which enhances employees' self-protection awareness.

Detecting occupational hazards. Occupational hazard notification

cards are displayed at the workplace where occupational hazards may occur, the occupational hazards of each production device are tested regularly, and each employee is notified to do personal protection.

Conducting occupational health surveillance. Based on the types of hazards exposed to employees and in accordance with the Technical Specifications for Occupational Health Surveillance, China Coal Shaanxi Company entrusts hospitals with occupational health examination qualifications each year to determine the special medical examination items and conduct physical examinations for newly-employed, on-the-job and resigned employees, and it also establishes an employee health monitoring file. In 2018, it conducted physical examinations for 97 newly-employed employees, 1,236 on-the-job employees, and 20 resigned employees. The physical examination coverage rate was 100%, and no case of occupational disease was found.



Ensuring the Remuneration of employees

China Coal Energy always focuses on the employees' benefits. The Company continuously perfected and completed its reform of remuneration system, deepened the reform of its distribution system, optimised remuneration distribution structure and implemented positive incentive method to form a scientific and effective incentive and restrictive mechanism and maintain the stability of its staff.

The Company strengthened the assessment of total remuneration to ensure that the remuneration and benefits of enterprises are matched. The newly increased benefit-based remuneration was mainly allocated to enterprises that have made positive efforts to reduce costs and boost benefits and enterprises that have achieved outstanding operating results, and the amount of remuneration thus became flexible. It promoted the distribution system reform by classification, optimised the remuneration distribution structure of old enterprises, and allocated more remuneration to key positions, key talents, and urgently needed talents; it promoted a new enterprise system and established a basic remuneration system that reflects post value, highlights performance orientation, and balances internal and external fairness and external competition.

The Company established a social security system by law, paying the social insurance fees assumed by the Company for its employees and ensuring employees' social benefits including pension and medical treatment. In addition, the Company set up a corporate annuity system in line with government policies, which worked as a supplementary to basic pension for employees to improve employees' post-retirement sense of happiness.

Promoting Career Development of Employees

Improving overall quality of employees

China Coal Energy adheres to the talent-driven development strategy

and sticks to the concept that "talent investment is the most profitable investment." The Company opened channels for employees to learn, perfected the incentive system, carried out employee training and comprehensively improve the overall quality and personal ability of employees in order to mutually benefit employees and the Company.

The Company carried out extensive employee vocational education and training activities, improved the three-level training institution system at the company level, secondary business unit level and factory and mine workshop level, and continuously heightened the construction level of the three training bases, namely China Coal Vocational and Technical College, Pingshuo Group Education and Training Centre and China Coal Chemical Training Centre. In addition, it strengthened the coordination of training, integrated effective resources, and innovatively carried out skills training for various types of work and specialties such as coal mine production, washing and selection, electric power, and coal chemical industry.

In 2018, the Company focused on the needs of high-quality development, team building and talent growth and deepened talent training at the three levels of management, technology and operation, in particular training for top-notch talents, leading talents and urgently needed talents, with ideological and political construction and quality improvement as the main line. Through special and pragmatic themed training, more than 1,100 employees from the Company and employees were trained nearly 110,000 times at secondary enterprises or training institutions, which further improved the ability of various personnel to adapt to the new era, achieve new goals and implement new deployments, and provided talent protection and intellectual support for the Company's development during the 13th Five-Year Plan period.



Employee skill competition

Up to the end of 2018, China Coal Energy boasted 2 members selected in the State-level Candidates of the New Age Hundred-Thousand-Ten Thousand Talents Project, 242 senior professional managers in the coal industry, 37 “master technicians in the coal industry”, 4 “excellent technicians in the coal industry” and 21 studios for master technician in the coal industry, and 5 employees awarded the honorary title of “national technical expert” by the State Ministry of Human Resources and Social Security.

Facilitating staff development path

According to the features of the industry and development needs of employees, the Company formulated Guidance on Further Strengthening and Improving Work for Employee Career Development, offering three paths, namely managerial and administrative job path, professional skill job path and technical expertise job path, for staff’s career advancement. Promotion evaluation systems are improved from time to time in order to provide diverse paths and fair chances for staff development.

In 2018, a total of 796 employees participated in 6 series of professional title evaluation covering, inter alia, engineering, political and ideological work and economy, and 595 of them passed the evaluation, with a passing rate of 74.74%. Professional skills appraisal management is also strengthened. In 2017, 539 employees from coal, electrical and chemical industry technicians and senior technicians were assessed for the qualification of respective work types, and 413 of them passed, with a passing rate of 76.62%.

Up to the end of 2018

2

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

242

senior professional managers in the coal industry

37

master technicians in the coal industry

4

excellent technicians in the coal industry

21

studios for master technician in the coal industry

5

employees awarded the honorary title of “national technical expert”

Sharing the Results of Corporate Development

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

Helping employees in need

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



Balancing Work and life

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



"China Coal Cup" football match



Pingshuo Mining Area celebration of the 40th anniversary of reform and opening up



Staff Summer Party



Safety theatrical performance

Performance in Employee Responsibilities

Name of indicator	2016	2017	2018
Number of on-the-job employees	47,113	44,356	42,194
Contract signing rate (%)	100	100	100
Social insurance coverage (%)	100	100	100
Trade union participation rate (%)	100	100	100
Staff turnover rate (%)	2	1.7	1.4



Benefiting the People's Livelihood and Repaying the Society

Benefiting Local People's Livelihood

Facilitating Targeted Poverty Alleviation

Developing the Social Benefit

Performance in Community Responsibilities

Community Responsibilities





Comments from Stakeholder

"The working group of China Coal has helped me a lot. Last year, they included me into the sheep breeding cooperative. This year, they found a market for my walnut business, built a pigeonry for my family, and gave me 400 doves. I will raise more pigeons and strive to shake off poverty by the end of the year."

Moramat Yiman, Villager of Towank Ai Lamu Kuduk Village, Ayibage Township, Awati County, Xinjiang

A company's development depends on the long-term support and assistance from its operation locations. China Coal Energy attaches great importance to the economic and social development at its operation locations and actively takes social responsibilities and supports the construction of local economy while ensuring its own operation and development. Activities were carried out, including helping and supporting those in need, making financial donations to help develop education as well as disaster relief and rescue, developing together with communities at its operation locations and achieving mutual benefits and a win-win situation.

Benefiting Local People's Livelihood

China Coal Energy, with its own funds, labours and technologies, actively participates in local economic construction and offers assistance to communities in project construction, production, sales, etc., to promote the upgrade of local industries and economic development, achieving the win-win harmony with local government. In 2018, the total social contribution of China Coal Energy reached RMB31.96 billion, including paying taxes, labour costs, realised net profit and interest expenses, and the social contribution value per share reached RMB2.41. All kinds of taxes and fees amounted to RMB12.985 billion, accounting for 12.5% of the operating revenue. The company actively responds to and implements the basic strategy of national precision poverty alleviation, and gives full play to its own advantages to help precision poverty alleviation. In 2018, the donation made to the society and poverty alleviation funds utilised by China Coal Energy amounted to RMB16.8 million.

Promoting local employment

China Coal Energy has always been insisting on the employment modes including open recruitment and labour dispatching to actively create and offer job opportunities in the places where its businesses are performed.

Implementing relevant local policies, China Coal Shaanxi Company gives priority to introducing local talents as regular employees to promote the employment of Shaanxi Province and Yulin City. Now, there are over 1,200 registered employees in the Company, over 700 are from Shaanxi province (including over 580 employees from Yulin), constituting above half of the total employees. Shaanxi Company also works together with local employment agencies to give priority to the recruitment of local workers. At present, there are 78 firefighters in Shaanxi Company, including 65 from Yulin, accounting for 83%. In 2018, the Shaanxi Company hired new cleaning workers, and 15 cleaning workers recruited were all from poor families in Yulin City.

Mengda Mining Co., Ltd., a subsidiary of Northwest Energy Company, has recruited more than 400 employees of Wushen County in recent years, which not only addresses the shortage of employment in the Company, but also solves the employment problem for unemployed workers and rural surplus laborers in Wushen County. It was awarded the honorary title of "Advanced Enterprise for Promoting Local Employment" by Wushen County government in 2018.



"Advanced Enterprise for Promoting Local Employment" Medal

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. China Coal Shaanxi Company has used 709 suppliers in 2018, of which 403 are local suppliers, accounting for 57% of the total number of suppliers.

Support the construction of local economy

In accordance with requirements of the national economic development policy, industrial policy and regional planning, China Coal Energy actively supports economic and social development of the place where it operates by making use of its own business advantages and focusing on the needs of the local people's livelihood.

In 2018, China Coal Energy Xinjiang Branch maintained stable and orderly production and operation, producing and selling 4.37 million tons of commercial coal, generating 4.908 billion KWH of electricity, and connecting 4.611 billion KWH of electricity onto the grid. To promote the construction of coal and power projects, it made an investment of RMB2.137 billion in infrastructure construction. Among the total investment, RMB1.729 billion went to the second Power Plant located in the north of Wucai Bay, pushing up the plant's cumulative investment to RMB4.162 billion, and RMB408 million went to Hami Grand South Lake No.7 Coal Mine, driving up the mine's cumulative investment to RMB2.439 billion. Owing to the investments, the local economy was further developed.

Building harmonious community

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

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

Facilitating Targeted Poverty Alleviation

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

In 2018, the Company arranged a donation fund (including the value of materials) of more than RMB16.80 million mainly for providing aid for Xinjiang, industry-based poverty alleviation, education-based poverty alleviation, consumption-based poverty alleviation, and infrastructure construction.

Making greater efforts to provide aid for Xinjiang, China Coal Energy Xinjiang Branch closely focused on the overall goal of maintaining social stability and long-term peace in Xinjiang, made strengthened efforts to win the poverty alleviation battle, and furthered the guidance and management for the activity of "Visiting the People, Benefiting People's Livelihood and Gaining People's Support" and the "first secretaries" for villages with exceptional poverty. The poverty alleviation force in the village was further strengthened, the number of members of the in-village working team was increased from 5 to 10, and the new members included two Uighur cadres. Two in-village "first secretaries" were sent for villages with exceptional poverty in Hetian. In 2018, it invested more than RMB3.7 million in helping villages in Xinjiang and coordinated the government's various funds of more than RMB58 million to solve livelihood issues related to water, electricity, the Internet, and the collective economy. It formulated precise assistance measures, actively developed the cultivation and breeding industry according to the local resource endowment conditions, and at the same time broadened the employment channels of the villagers. The poverty alleviation measures of China Coal Energy Xinjiang Branch were widely praised by the local government and the community and were specially reported by Xinjiang Daily and Xinjiang TV Station.



China Coal Energy conducted poverty alleviation through industrial development. It invested over RMB3 million to help impoverished regions to develop industries such as planting, breeding and photovoltaic power generation. A company invested by Shaanxi Company provided RMB10 million for Liangjiahe Village, Yan'an City to help boost the local rural tourism industry.

It participated in poverty alleviation through education by donating books to primary schools in impoverished areas.

It participated in poverty alleviation through consumption. China Coal Energy purchased over RMB530,000 worth of agricultural products from impoverished regions. On the national Poverty Alleviation Day, it launched a donation activity, raising over RMB930,000.

It strengthened infrastructure construction by helping impoverished villages harden roads and install street lamps and improve production and living conditions for impoverished people.



Xinjiang Branch Issues "Poverty Alleviation Sheep"



Donation Activity on National Poverty Alleviation Day

Developing the Social Benefit

Participating in social rescue

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



Case

Shanghai Energy's rescue team headed for Shouguang of Shandong to fight the flood and provide relief

Due to the fall of Typhoon Yagi and Typhoon Rumbia, Shouguang of Shandong was hit by the strongest heavy rain since 1951 from 19-20 August, resulting in severe losses of life and property. There was severe situation in flood prevention and relief. When a disaster took place, forces across China offered their helping hand. Shortly after Shanghai Energy's rescue group received an instruction at 8:41 on 26 August from the national emergency rescue command center to head for Shouguang of Shandong to fight the flood and provide relief, it made fast deployment and organized a rescue team to provide relief for the disaster area.

Rescue team members headed for Shouguang at night. Immediately after the first rescue team members arrived in Shouguang at 22:30 on 26 August, they arrived in Dongfang East Village, Jitai Town, and arranged by the municipal government of Shouguang to know the disaster area's site conditions. They discussed and worked out a plan and placed water pumps in the most flooded area in Dongfang East Village to drain water throughout the day. After the second rescue team members arrived, they immediately started to lay cables and water pipes.

During a period of more than ten days, they worked day and night to fight against flood and provide relief and took turn on duty. When they were tired, they took a break in tents, and when they were hungry, they gobbled food. They are a team that is responsive, flexible, strong-minded and courageous and wins the battle and gains trust from leaders and satisfaction from people. The team installed pumping equipment, cleaned

sludge and wastes, and helped people in the disaster area repair greenhouses. Shanghai Energy's rescue team members helped local villagers resume production. During a period through 5 September when the disaster relief ended, the team successfully completed its rescue tasks by draining 71,510 cubic meters of water, connecting 1,640 water of drain lines, laying 616 meters of cable, and rescuing 12 greenhouses.



Flood Fighting and Rescue Team of Shanghai Energy Company



Supporting the social welfare

China Coal Energy actively participates in social benefit undertakings. With a donation management system in place, the Company selects public welfare projects following the principle of “willingness, clear responsibilities, ability-based actions, credibility,” and based on the Company’s annual business performance. China Coal Energy helps and supports the poverty-stricken people through donation of money and goods, and advocates cultural and sports undertakings, serving the society wholeheartedly.

Providing volunteer service

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



Conduct volunteer service activities

Performance in Community Responsibilities

Name of indicator	2016	2017	2018
Tax paid (RMB100 million)	62.74	107.90	129.85
Donations and poverty alleviations (RMB10 thousand)	137.90	440.30	1,680
Total social contribution (RMB100 million)	226.27	266.19	319.60
Social contribution per share (RMB)	1.71	2.01	2.41



2019 Outlook

Year 2019 marks the 70th anniversary of the establishment of New China and a key year in building a moderately prosperous society. Although China's economy remained steady with changes, some of which caused concerns, and increasing downward pressure, China will remain in a period of important strategic opportunities in the long run, and the economy has a strong resilience and a huge potential, with its unchanged momentum. In terms of energy structure, coal remains as a main energy, and economic growth will drive up the demand for coal. With the improved system for medium- and long-term coal contracts and more standard market order, coal prices will remain steady. With its all-out efforts in recent years, China Coal Energy has garnered steady growth and will enter a new stage of high-quality development. In 2019, the Company will use Xi Jinping's Thought on Socialism with Chinese Characteristics for a New Era as its guidance and advance supply-side structural reform while pushing ahead with various work such as safety guarantee, steady growth, and structural adjustments, advancement of reform, innovation promotion, benefit enhancement, and risk prevention so as to boost the Company's high-quality development.

The Company will stabilise its production, improve sales and strive to improve its quality and efficiency. The Company will scientifically organise production and sales, strive to increase output, revenue and efficiency, steadily improve operation result and ensure the realisation of the annual operation target. The coal enterprises will release safe production capacity and advanced production capacity in an orderly manner to produce more safe coal and efficient coal. Coal chemical enterprises will further promote refined management and devote themselves to long-term, stable operation to continue to maintain stable production and high output. The power companies will improve their professional management levels, promote energy conservation, reduce energy consumption, make innovations, and improve quality and efficiency. Coal mining equipment companies will strive to improve their capabilities of R&D, manufacturing and marketing and operating profitability to ensure stable operations, maintain growth, and improve quality.

The Company will strengthen safety standards with a comprehensive approach. Firmly establish the concept of safe development, carry forward the idea of life first and safety first, focus on strengthening major safety risk management and control, treat both the symptoms and the root causes, focus on the root cause, and promote the four major projects of system optimization, equipment upgrading, quality improvement and management improvement, and enhance intrinsic safety ability. We will eradicate major disasters, minimise minor casualty accidents and pursue "zero mortality", so as to ensure sustainable safe production for the Company.

The Company will protect the environment and insist on green development. We will thoroughly implement the overall deployment of the national ecological civilization construction, practice the concept of green development, actively promote the

green development of coal, clean and efficient use, and fight the battle against pollution. We will further promote energy conservation and consumption reduction, continue to promote pollution control and emission reduction, strengthen mine ecological restoration and management, and strive to build a "resource conservation and environment-friendly" enterprise.

The Company will pursue growth through innovation and stimulate development vitality. Firmly implement the innovation-driven development strategy, oriented to the company's main business, face the forefront of coal energy technology, increase R&D investment, focus on deepening the reform of the science and technology system, strengthen the R&D platform, focus on breaking through key core technologies, and accelerate the transformation of scientific and technological achievements. We will build a high-level scientific and technological talent team, deepen entrepreneurship and innovation activities, continue to deepen the technology cost reduction, continuously enhance the independent innovation and collaborative innovation capabilities, and strive to create a new situation in the company's scientific and technological innovation work.

The Company will embrace the people-oriented principle and safeguard employee's legitimate rights and interests. Sticking to the philosophy of "harmony", China Coal Energy has built harmonious labour relations, safeguarded the rights and interests of its employees. Care for the health and life of employees, improve the quality of life and working environment of employees, and make employees feel more comfortable, happy and safer. Pay attention to the cultivation of employees' ability and make full efforts for employees to create a development platform to achieve the common growth of employees and enterprises.

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

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