中煤能源社会责任报告 CHINA COAL ENERGY CSR Report 2017



Description for the Preparation of the Report

Summary of the report

China Coal Energy CSR Report 2017 is the ninth 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 2017 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 2017 to 31 December 2017. To increase the comparability of the report, certain contents may date back to previous years when appropriate.

Scope of reporting

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

Basis of preparation

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

"Guidelines on Preparation of Corporate Social Responsibility Report for Corporations in China – Coal Mining and Processing Industry" (CASS-CSR3.0) of the Chinese Academy of Social Sciences;

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

"Environmental, Social and Governance Reporting Guide" (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.

Sources of information

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

Description of references

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

Frequency of publication

This report is a yearly report.

Inspection of the report

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

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Chairman's Statement





2017 was an extraordinary year for the reform and development of China Coal Energy. Seizing the good timing when the macro economy enjoyed steady progress, the supply-side structural reform continued to move forward and the coal industry underwent a turnaround, we optimised the production organisation, enhanced production and sale synergy, made great efforts in improving quality and efficiency, promoted reform and innovation, accelerated transformation and upgrade, and enhanced risk prevention and control. As a result, the company achieved the best result in recent years in terms of operating revenue and total profit, and realised good operating results. 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 greatly increasing the operation level. China Coal Energy optimised the production organisation, enhanced production and sale synergy, further improved the capacity of coal production and sale organisation. 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 RMB81.123 billion with a year-on-year increase of RMB2.774 billion, representing the best result 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, and the enterprises in coal chemical, coal mine equipment sectors realised safe producton, with the mortality rate per 1 million tonnes of coal produced being 0.026, which is much lower than that of the national average for coal mines.

Building a "Green China Coal Energy" and improving green development quality. China Coal Energy has been persisting in building a "Green China Coal Energy", seriously implementing national laws and regulations on energy conservation and environmental protection, strictly complying with the policy requirements imposed by relevant national ministries on energy conservation and environmental protection, improving the mechanism of the working system, strengthening the efficiency of energy conservation, cost reduction and efficiency improvement, and highlighting the control of environmental protection risks, thus obtained positive results in the course of energy conservation and environmental protection. The Company achieved the annual control goals in regard to integrated energy consumption per RMB10,000 production output, emission of sulphur dioxide, chemical oxygen demand and NOx, and didn't record any great or more severe environmental incidents throughout the year of 2017. With constant efforts of building green mines, Pingshuo Group was awarded as "The Most Influential Green Enterprise Brand in China in 2017" and granted the first "Ecological Mine – Land Reclamation and Ecological Restoration Pioneer" title.

Strengthening innovation drive and leading the industry development of science and technology. China Coal Energy centred its technological innovations on ensuring safety production, promoting quality and efficiency improvement, promoting transformation and upgrade and enhancing innovation-driven growth, and achieved great results in the R&D of key technologies, furthering of "mass entrepreneurship and innovation" works, promotion of technological achievements and construction of innovation capacities, rendering positive contribution to the innovative development of the enterprise. In 2017, the Company received 20 industry and provincial level science and technology progress awards, and made application for 206 patents, including 58 invention patents, and was granted 143 patent licenses, including 46 invention patents. As a result, the competitiveness of the Company's core technologies was further enhanced.

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 2017, the total amount of the Company's social contribution reached RMB26.619 billion, including paying taxes, labour costs, realised net profit and interest expenses, with the social contribution value per share being RMB2.01, of which overall taxes and fees amounted to RMB10.79 billion and accounted for 13.3% 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 2017, the donation made to the society and poverty alleviation funds utilised by the Company amounted to RMB4.403 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 of 2018 is the first year to implement the spirit of the 19th National Congress of CPC and a key year for the Company to implement "13th Five-Year Plan". Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the Company will focus on "cutting overcapacity, destocking, deleveraging, reducing costs, and remedying the weakness" in accordance with the general requirements of "quality improvement amid stability with reform and innovation", vigorously improve quality and efficiency to increase its earnings level, deepen the reform, encourage innovations and entrepreneurship and inspire corporate vitality, uphold the safe production and stable 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 create 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 20 March 2018

Company Overview

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

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

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

Company Organisation Chart of CHINA COAL ENERGY COMPANY LIMITED



fety, Health and Environment



		China Coal Energy Company Limited, Jinnan Sales Branch	
		China Coal Energy Company Limited, Jinbei Sales Branch	
	Branches	China Coal Energy Company Limited, Xinjiang Branch	
		China Coal Energy Company Limited, Ordos Branch	
Constitution Affairs Descentarional		China Coal Pingshuo Group Company Limited	100%
Securities Affairs Department		Shanghai Datun Energy Resources Company Limited	62.43%
General office		China National Coal Mining Equipment Company Limited	100%
		China Coal and Coke Holdings Limited	100%
Department of Strategy Planning (International Collaboration & Development Department)		Shanxi China Coal Huajin Energy Company Limited	51%
		Ordos Yihua Mining Resources Company Limited	51%
Department of Human Resources		Wushenqi Mengda Mining Company Limited	66%
		China Coal Hami Coal Industry Company Limited	100%
Department of Operation Management		Shanxi Puxian China Coal Jinchang Mining Company Limited	51%
Finance Department		Shanxi Puxian China Coal Yushuo Mining Company Limited	63%
		China Coal Xinjiang Coal Electricity Chemical Company Limited	60%
Production and Operation Command Centre		China Coal Heilongjiang Coal Chemical Company Limited	100%
		Inner Mongolia China Coal Mengda New Energy & Chemical Company Limited	100%
Technology Management Centre		China Coal Finance Co., Ltd.	91%
	Subsidiaries	Inner Mongolia China Coal Yuanxing Energy Chemical Company Limited	75%
Department of Coal Chemical Management (Coal Chemical Safety Supervision Bureau, Coal Chemical		China Coal Ordos Energy Chemical Company Limited	100%
Research Institute)		Guangzhou China Coal South China Trading Company Limited	100%
Department of Infrastructure Management		China Coal Xing'an Energy Chemical Engineering Company Limited	100%
		China National Coal Development Company Limited	100%
Department of Electricity Management		Sunfield resources Pty. Limited	100%
Department of Science & Technology		Ordos Yinhe Hongtai Coal Power Company Limited	78.84%
and Environment Protection		Shanxi Zhongxin Tangshangou Coal Industry Company Limited	80%
Department of Information		China Coal Sales and Transportation Company Limited	100%
Management		Datong China Coal Export Base Development Company Limited	60%
Department of Safety and Health		China Coal Shaanxi Yulin Energy & Chemical Company Limited	100%
		China Coal Northwest Energy Company Limited	100%
Department of Legal Affairs		China Coal Chemicals (Tianjin) Company Limited	100%
		Zhongtian Synergetic Energy Company Limited	38.75%
Audit Department		Taiyuan Coal Gassification Longquan Energy Development Company Limited	40%
Department of Corporate Culture		Shaanxi Yanchang China Coal Yulin Energy Chemical Company Limited	21.43%
		Datong Zhongxin Energy Company Limited	42%
Purchase Centre		Zhejiang Zheneng China Coal Zhoushan Coal & Electricity Company Limited	27%
		Tianjin Port China Coal Huaneng Coal Terminal Company Limited	24.5%
Coal Sales Centre		Huajin Coking Coal Company Limited	49%
	Equity Investment Companies	Guotou China Coal Tongmei Jingtang Port Company Limited	21%
Coal Chemical Products Sales Centre	companies	Mengji Railway Company Limited	5%
		Ordos Southern Railway Company Limited	10%
		Tangshan Caofeidian Coal Port Company Limited	5%
		Gansu China Coal Tianda Energy Company Limited	50%
		Hohhot-Zhungeer-Ordos Railway Company Limited	10%

Corporate Culture



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

China Coal Energy's Vision To Build Itself into a Clean Energy Supplier with Relatively Strong International Competitiveness

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

To 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 normal of national economic and energy development, the Company will unswervingly adhere to its development philosophy, precisely capture opportunities, and actively respond to challenges so as to expand industry advantages and offset its shortcomings in development. The Company will also unswervingly implement the "Thirteenth Five-Year plan":

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

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

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

Coal chemical industry: The Company will adopt the most advanced coal gasification technology and environmental energy saving standard to construct the large-scale coal chemical bases in Inner Mongolia-Shaanxi and Shanxi, etc. The Company will steadily promote the upgrading model projects of coal-based

new materials, chemical fertiliser and new energy, strictly control the energy consumption, water consumption and emission of pollutants, so as to cluster the project, expand the production scale and refine the products. The Company will increase the standard of multi-production and added- value of coal-based products so as to realise the transformation from traditional coal chemical to modern refined coal chemical.

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

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

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

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 Company Law and the Securities Law, so as to establish a check-and-balance mechanism with clear delineation of rights and responsibilities and standardised operation among the executive, 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, the Company made amendments to the Articles of Association and the Rules of Procedures of the Board of Directors according to the provisions of the Company Law and the Constitution of the Communist Party of China and clarified that the Company should set up the Party organisation and related working organ and that the Party organisation should play the role of the leadership core and political core in the Company. The Company also clarified that when making decisions on significant matters such as direction of reform and development, key objectives, and priority operational arrangements of the Company, the Board of Directors should seek advice from the Party organisation. When the Board of Directors proposed to engage a management staff of the Company, the Party organisation should consider and provide their opinions on the candidate nominated by the Board of Directors or the President, or recommend relevant candidate to the Board of Directors or to the President. Through amendments to a series of rules and regulations such as the Articles of Associations, a system guarantee has been provided for the corporate Party organisation to play the leading role and the corporate governance structure has been further optimised. There is no 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. objectives and tasks and the key work arrangements, it is should first listen to the opinions of the Party organisation, so that the Tirst 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 specialised committees are established, namely audit and risk management committee, remuneration committee strategic planning committee, committee. remuneration strategic planning committee, safety, health and environmental protection committee and nomination committee. Full play is given to the role of the specialised committees so that major decisions will be discussed first by the specialised committees before they are submitted to the Board for consideration. 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 2017, China Coal Energy organised and convened two General Meeting, eight 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





Procurement Management Business Training

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 2017, 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 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 2017, the quality concerned complaint rate of centralised procurement of the Company was zero. No disciplinary offence was recorded in relation to centralised procurement at the Company' headquarters. No supplier complaint was recorded during the whole year of 2017.

Corporate Governance

Anti-corruption. As a state-controlled listed company, China Coal Energy has always integrated Party building and anti-corruption work into the general course of enterprise reform and development, covering every aspect of its production and operation, to provide a strong and effective safeguard for the healthy and sustainable development of enterprises. The Company 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 2017, the Company established the Party committee and discipline inspection committee, 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 attached great priority to the discipline and rules, and dealt with disciplinary offences early before it grew up. The Company took the initiative in practising the "Four Ways of Enforcing Party Discipline", looked into every case and eliminated every corrupt official, and investigated in a number of cases of breaching the rules and discipline. The Company strictly implemented the "Eight Rules" spirit and resolutely rectified the "four types of detrimental practice". In particular, the Company established a long-term mechanism for the supervision and inspection of the "four types of detrimental practice" related problems during major festivals, formulated and printed the Notice on Matters Concerning Further Implementation of the Eight Rules Spirit and Strengthening of Working Style Construction, and organised centralised and pertinent rectification of the detrimental practices at the grassroots level to ensure the real change in great priority to the discipline and rules, and dealt with disciplinary practices at the grassroots level to ensure the real change in working style. The Company strictly promoted the full coverage of inspection, and organised three rounds of internal inspections. Further, the Company emphasised on the use of inspection results, and focused on problem rectification, to ensure that "every case is reviewed, and everything ends with a conclusion", which

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

Supervision through auditing. The 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 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.



Visiting Anti-corruption Education Exhibition Organised by Xinjiang Branch



Management of Social Responsibilities

Work System of Social Responsibilities

China Coal Energy is committed to in-depth implementation of the harmonious development strategy, and promoting management of social responsibilities continuously, with a focus on incorporating the concepts and requirements of social responsibilities into the current management system. Actively exploring on the social responsibilities management model suitable for itself, the Company seeks to continuously improve the capability to 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 Environmental protection Employees responsibilities Community growth Contribution to the industr Sustainable development Safety production Company results Innovation capability

Impact on the development of and attention of China Coal Energy



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 international seminar of social responsibility report held by China WTO Tribune, and the 100-person Forum on Social Responsibility hosted by Social Responsibility Research Centre of Chinese Academy of Social Sciences. **Promoting the practice of the social responsibility.** At the beginning of 2017, the Company held the work meeting of social responsibility so as to listen to each work unit's report of social responsibility work in 2016 and arrange the major social responsibility tasks of 2017. Through carrying out the voting of excellent cases of the social responsibility, the Company promoted the awareness of social responsibility and practical ability of the subordinate enterprises, and encouraged qualified major subsidiaries to publish social responsibility report regularly. By strengthening social responsibility research, and exploring the social responsibility concept, connotation, target and pathway of the coal enterprises, the Company promoted its social responsibility to be implemented more effectively in the subsidiary companies.

Enhancing communication about social responsibility. Since 2009, when the first social responsibility report was issued, China Coal Energy has issued social responsibility reports for 9 consecutive years, and was awarded the title of "CCTV Finance 50 Index ·Top 10 Companies of Social Responsibility" for twice. In 2017, the picture for poverty alleviation by the working group of Xinjiang Branch of China Coal Energy at villages of South Xinjiang was granted the "Reward for the Most Beautiful Poverty Alleviation Picture" by 100-person Forum on Social Responsibility for Chinese Enterprises.



China Coal Energy was granted the "Reward for the Most Beautiful Poverty Alleviation Picture"

Improving Quality While Maintaining Stability, Promoting Reform and Innovation

Scientifically Organising Production Steadily Promoting De-capacity Providing High Quality Products Improving Quality and Efficiency Accelerating Transformation and Upgrade Performance in Economic Responsibilities

Economic Responsibilities



Comments from Stakeholder

In 2017, the supply of coal was tight nationwide. China Coal Energy assisted our company in fulfilling its mission of ensuring supply at all important times with a strong sense of social responsibility. Prior to the Spring Festival of 2018, China Coal Energy strictly enforced the price-cap policy of the NDRC, and in respond to the government call for reducing coal prices, China Coal Energy actively looked for high-quality resources to supply to our company, which effectively ensured our company's coal supply.

> Zhu Zhanfang, General Manager of Guangdong Power Industry Fuel Company Limited

2017 was an extraordinary year for the reform and development of China Coal Energy. Seizing the good timing when the macro economy enjoyed steady progress, the supply-side structural reform continued to move forward and the coal industry underwent a turnaround, we optimised the production organisation, enhanced production and sale synergy, made great efforts in improving quality and efficiency, promoted reform and innovation, accelerated transformation and upgrade, and strengthened risk prevention and control. As a result, we achieved the best result in recent years in terms of operating revenue and total profit, and realised good operating results. The Company realised the operating revenue of RMB81.123 billion with a year-on-year growth of 33.7% and the total profit of RMB6.147 billion with a year-on-year increase of RMB2.774 billion, representing the best result 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 75.54 million tonnes, of which the thermal and coking coal outputs reached 66.90 million tonnes and 8.64 million tonnes respectively. Pingshuo Company was fully committed to the organisation of production, expedited land acquisition and village relocation and took serious measures on making up the stripping volume as well as on production increase of underground mining, in order to ensure that the coal output remained stable, which will provide support for the stable increase in coal production in the next few years. Shanghai Energy Company actively overcame the difficulties such as complex geological conditions, more difficult organisation of production, etc., continuously optimised the production system and washing and preparation techniques, and spared no efforts to ensure production stability and quality improvement. China Coal Huajin Company guaranteed mining and roadheading succession in advance and maintained balanced, efficient production, achieving smooth, orderly production and operation as well as another record high of comprehensive profit.

In 2017, the Company actively fulfilled its social responsibility and played the leading role as a key enterprise. Besides, the Company deeply implemented the new thermal coal long-term agreement system, accurately coordinated production with sales and strengthened marketing regulation to continuously improve its marketing and profit-making capabilities. Through optimisation on the development strategy of the coking coal market, the end users of the metallurgical industry increased steadily and the Company's market influence was improved effectively.



Coal Production

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 by orderly arranging facility overhaul and proactively eliminating system defects. The Company's facility start-up level and main econo-technical indicators stayed ahead in the world. Yulin Olefin Project seriously implemented safety control in high-load state and hit a new level in production, with an average daily polyolefin output exceeding 2,166 tonnes and an annual polyolefin output of 684 thousand tonnes. Tuke Fertiliser Project strived to make technological breakthrough and effectively tapped the facility potential, hitting a new record high in main and by-product outputs and achieving an annual urea output of 1.996 million tonnes which represented a year-on-year increase of 140 thousand tonnes. Mengda Engineering Plastics Project was put into formal operation in August and maintained stable operation with high load, with an annual polyolefin output of 632 thousand tonnes.

Seizing the opportunities of advanced production capacity release of coal mines and increase in equipment demand, the Company made great efforts to win orders, consolidated the market share of major products and fully explored the production potential. In addition, the Company actively coordinated all the resources, strengthened the organisation of production and released the processing capacity in order to meet the users' needs with all its strength. In 2017, the accumulated amount of the signed contracts increased by 62.5% on a year-on-year basis. The Company focused on production schedule to ensure delivery on time by overcoming difficulties such as concentrated contract tasks and short lead time, and achieved production value of coal mining equipment of RMB4.97 billion, representing a year-on-year increase of 54.3%. The total production volume of coal mining equipment, representing a year-on-year increase of 80%.

Steadily Promoting De-capacity

Solving the over-capacity issue in the coal industry is an important part of China's supply-side structural reform and also a major measure taken by the coal industry to achieve an upswing from loss to profit. China Coal Energy actively took the initiative and responsibilities and saw de-capacity as a serious political task and a rare opportunity to realise its transition, implementing the measure in all areas and pushing forward steadily. Second Underground Mine of Pingshuo Group, which was on the list of mines to implement de-capacity, successfully completed the task of solving over-capacity of 10 million tonnes per year.

Case Study

Second Underground Mine of Pingshuo Group Company Successfully Completed Its De-Capacity Work

Second Underground Mine of Pingshuo Group Company is located in Pinglu District in Shuozhou, Shanxi, with approved capacity of 10 million tonnes per year. Due to resources on the verge of being exhausted, second underground mine was listed as a mine to implement de-capacity in 2017.

Attaching great importance to the de-capacity work of Second Underground Mine, Pingshuo Group established a leadership team, considering employee resettlement as the priority among priorities and safeguarding its employees' legitimate rights. Pingshuo Group took the following measures: actively guiding and encouraging employees from closed mine to take unpaid leave and become self-employed, transferring redundant staff out of the company; training redundant employees and improving their labour skills, transferring them to different posts inside the company; allowing employees who meet relevant conditions to retire internally, ensuring that employee resettlement and social security work following mine closure are completed successfully to prevent conflicts from intensifying and mass events from occurring. Pingshuo Group fulfilled its responsibility for maintaining corporate and social stability, strictly followed relevant government policies when formulating work plans and implemented them strictly according to standards, assessed social risks, formulated relevant contingency plans to handle emergencies and ensure overall stability of de-capacity work. The employee resettlement plan for Second Underground Mine of Pingshuo Group was implemented, with 574 employees resettled at the end of 2017.

On October 25, 2017, the mine completed work including equipment retracement and mine entrance closure, meeting acceptance conditions. On October 31, the acceptance team carried out on-site acceptance at Pingshuo Group, and the closure of Second Underground Mine was completed.



Equipment Retracement in Second Underground Mine of Pingshuo

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 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. The Company accelerated improvement on the logistics system, integrated internal and external resources and strongly developed collaborative sales in order to increase the sales volume and market share, achieving the full-year sales volume of proprietary coal trading of 47.52 million tonnes.

In 2017, based on the supply-side structural reform, while keeping a close eye on the market demand, the Company strived to improve the supply capacity with high quality. During the reporting period, the Company generally maintained smooth coordination between coal production and sales, with the sales volume of self-produced commercial coal being 73.29 million tonnes.

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 northeastern 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

While solidifying market share of main products with all its strength, the Company made great efforts to develop spare parts services, non-coal and overseas markets. In 2017, China Coal Equipment Company seized the opportunity that the market began to recover and orders showed restorative growth, achieving total sales of RMB8.06 billion, representing a year-on-year increase of 62.5%, among which RMB1.07 billion was in spare parts and services and RMB1.43 billion in non-coal products, representing a year-on-year increase of 2.8% and 22% respectively. Non-coal products and spare parts and maintenance services all accounted for over 20% of sales revenue.



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.

The Company promoted the refined management in coal chemical companies, optimised technique and operation as well as spared no efforts to maintain steady and high production, with the production of main products exceeding planned target and unit consumption of products hitting the best record during one-month equipment maintenance.

The Company implemented professionalised management in the electricity power sector and 2017 Special Working Plans for Improving Quality and Efficiency, achieving much lower coal consumption in power companies than planned.

Accelerating Transformation and Upgrade

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

Coal Industry: By adhering to economy of scale and intensive development, the Company attached great importance to developing high-production and high-efficiency coal mines in areas including Shanxi, Inner Mongolia, Shaanxi and Xinjiang, moderately increased production of advanced capacity products in Ordos, production of efficient products in Northern Shanxi and production premium products in middle Shanxi under the premise of ensuring safety.

Coal chemical industry: With importance attached to developing coal-to-olefin and large coal-to-urea industries, as well as in optimising development of the coking industry, the coal chemical conversion scale continued to expand. The Company's coal-based fertiliser project constructed in Inner Mongolia-Shaanxi base which is the largest single urea plant project in the PRC, has commenced operation and exported its high quality granular urea overseas. The coal-based olefin project has set records in terms of the shortest construction period and test run compared with the similar facilities in the PRC. The products have been widely recognised by the market. In the next step, The Company will focus on developing such phase-II projects in Shaanxi Yulin and Inner Mongolia Tuke, promoting to cluster the project, expand the production scale and refine the products.

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

Coal Mining Equipment Industry: The Company spared no effort to stablise and solidify market share of coal equipment products, actively expanded spare parts services, non-coal and overseas businesses, steadily pushing forward reform and transformation. Traditional leading industry relating to "intelligent complete set of excavation technology equipment" continued to grow and expand. The Company made breakthroughs in a series of high-end intelligent equipment, such as 3×1600 AFC, ultra cutting height coal shearer, laser directional intelligent roadheader, working face automatic and centralised control system, which received great welcome from the customers. The technical equipment industry for clean utilisation of coal progressed steadily, and obvious results were achieved in transitioning from traditional manufaturing to manufacturing services.

Performance in Economic Responsibilities

Marca Marca Barra	2045	2046	2047
Name of Indicator	2015	2016	2017
Production volume of commercial coal (10 thousand tonnes)	9,547	8,099	7,554
Sales volume of commercial coal (10 thousand tonnes)	13,772	13,235	12,927
Production volume of polyethylene (10 thousand tonnes)	35.3	36.1	49.8
Production volume of polypropylene (10 thousand tonnes)	33.0	34.9	47.8
Production volume of urea (10 thousand tonnes)	196.3	197.5	199.6
Production volume of methanol (10 thousand tonnes)	78.6	65.1	62.5
Production value of coal mining equipment (RMB100 million)	43.1	32.2	49.7
Total Assets (RMB100 million)	2,569.80	2,418.87	2,488.39
Net assets attributable to the equity holders of the listed company (RMB100 million)	834.84	859.47	890.12
Revenue (RMB100 million)	592.71	606.64	811.23
Total profit (RMB100 million)	-25.25	33.73	61.47

Safety is of Vital Importance, Life is the Most Valuable

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

Safety Responsibilities



Comments from Stakeholder

China Coal Energy has done a lot of work in production safety, accumulated a lot of experience and achieved many results. In general, the Company features "four highs and one low": a high integrity of the industry chain, high industrial concentration, and high level of mechanization, high level of standardisation of production safety and low mortality rate of one million tonnes coal production.

Huang Yuzhi, Deputy Director of the State Administration of Work Safety and Director of the State Administration of Coal Mine Safety

In 2017, the Company strictly complied with the national regulatory requirements and policies on production safety. The Company 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, and the enterprises in coal chemical, coal mine construction, electricity and equipment sectors realised safety production, with the mortality rate per 1 million tonnes of coal produced being 0.026.

Implementing Safe Production Responsibilities

Further Implementing Safety Responsibility

With a view to implementing the safety production responsibility system, responsibility undertakings were signed at each level to devolve and implement safety accountability. The safety responsibility mechanism and safety management system were constantly improved according to the principles of 'two duties for one post, co-responsibility for the party and governmental official, and liability pursued for neglect of duty" and the requirement that "safety must be taken into account in the business management and the production and operation management". The key points and responsibilities of the Company, subsidiaries, plants, mines, and working teams in respect of safety control were explicitly pointed out, and liability investigation and accountability was enhanced.

Enhancing safety risk control efforts

The Company focused on the five major risks (gas, water disaster, listing and transportation, ceiling and rock burst), entrusted dedicated scientific research institute to make "one ventilation and three prevention" technical analysis on the high gas mines and mines outburst with coal and gas, and organised experts to conduct special inspection and evaluation on the shaft lifting system, gas and water disaster. The Company also established coal mine key safety technology business consultation mechanism to drive the implementation of business security liability and effectively controlled major risks. The Company enhanced the control over "two focuses and one major hazard" of the coal chemical enterprises. The major hazard source monitoring rate, automatic control rate of dangerous chemical process subject to supervision focus and utilisation rate of new coal chemical enterprise SIS system all reached 100%.

Enhancing Fundamental Construction of Safely Strengthening Risk Control

China Coal Energy has perfected level-by-level safety risk control measures for which the core is risk pre-control management and the method is cutting off causal links of accidents. At the beginning of 2017, the Company organised subsidiaries to compile safety risk reports, timely identified medium and high safety risks, of which high safety risks were supervised on-site on a daily basis. In addition, major risks were labelled and urged to be tackled. Monthly tracking were carried out regarding major risk control, arranged meetings with high-risk companies level by level. Special attention was paid to the supervision and examination on mines and coal chemical plants with high safety risks. Professional technicians were organised to offer on-site supervision and guidance during the operation of highly risky projects.

Strengthening Safety Production Standardisation Construction

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

The Company made great efforts to push forward coal mine standardisation construction and company improvement based on the performance of benchmarking companies in the industry. 6 coal mines including Wangjialing Coal Mine and Yaoqiao Coal Mine were ranked as Level-I Safe Production Standardised Coal Mines in China, and 6 coal mines passed the preliminary test for being ranked the same. Huajin Company gradually established a set of effective measures for the governance of water damage, gas and dust, setting up multiple standardised sample projects. Shanghai Datun Energy Company continued to make achievements in standardisation and refinement, with its four coal mines passing the inspection and acceptance by State Administration of Coal Mine Safety at one go.

Case Study –

China Coal Energy Huajin Company's Wangjialing Coal Mine Pushed Forward Safe Production Standardisation Construction

Wangjialing Coal Mine continued to push forward safe production standardisation construction and enhanced safety management foundation, winning itself multiple honours including one of the first batch of Level-I Safe Production Standardisation Mines in China, Highly-Effective and Safe Mine in the Coal Industry and Modern Mine in Shanxi province.

Preventing and controlling safety hazards ahead. Wangjialing Coal Mine strengthened safety "double prevention and control" management as well as perfected the safety risk "double prevention and control" management system for which the focus was on safety risk reorganisation and level-by-level control and hazard checking and governance. Wangjialing Coal Mine hired experts to inspect all mine systems every year, formulated targeted technical measures for major disasters including gas explosion, roof and water damage as well as stressed on the governance of disasters ahead. In addition, Wangjialing Coal Mine established prevention and early warning information management system for safety accidents. Information on safety hazards was automatically pushed, followed up and warned against by the system, realising closed-loop management.

Standardising on-site safety management. Wangjialing Coal Mine strictly implemented policies where leading cadres were asked to go down to underground mines and lead teams, strengthened on-site management, implemented the safety model of "Three Controls, Two Managements and Six Co-ordinations", carried out the policy of "using heart, eyes, mouth and hands" during shift changing and strongly promoted Employee Safety Conduct Standards. All employees took part in a unified exam about the Standards, and everybody passed it, as well as participated in on-site drilling to promote each employee to achieve "standardised behaviours", processed operations and normalized behaviours".

Strengthening evaluation dynamic standard meeting. Wangjialing Coal Mine perfected the reward and punishment system for meeting and failing to meet standards, rectified standardised evaluation methods, strengthened standardised dynamic standard meeting construction as well as carried out "dynamic" evaluation. Wangjialing Coal Mine also continued to carry out the evaluation system where both regular and dynamic checks, both daily and monthly checks as well as both quarterly and annual checks were implemented. In addition, Wangjialing Coal Mine carried out strict evaluation of the completion of work targets, honoured the reward and punishment, effectively promoting safe production standardisation construction.



Safe Production Standardisation Construction



Strengthening Safety Supervision and Inspection

Safety supervisions for key times were enhanced based on the characteristics and rules of safety work, always sustaining the high priority given to safety. The Company senior leaders personally led the several inspections and instructions on safety work at the grassroots units and at the underground mines. Comprehensive safety inspection and supervision were carried out during the National People's Congress and the Chinese Political Consultative Conference and the 19th National Congress of the Communist Party of China to ensure the safety production at key times. The relevant units implemented safety responsibility guarantee based on the work deployment of the Company, and highlighted safety inspection of the key areas, critical parts and key points, thus ensuring uninterrupted on-site safety inspections, more than 100,000 items of hidden dangers were checked, effectively eliminating safety loopholes.

over **100,000**

items of hidden dangers were checked

Improving Safety Guarantee Capability

6

Ensuring Safety Investment

China Coal Energy correctly handled the relationship between safety investment and profits, dividend, providing sufficient fund guarantee for the upgrade and transformation of engineering and safety equipment for treatment of safety hidden danger, gas and water damage. The Company resolutely eliminated equipment and technique clearly banned by government, quickened the technology transformation of old equipment and backward technique with high safety risks and bad working condition for old mines and mines that went through resource integration as well as further optimised system, reduced producing horizons, development heads and working faces, and reduced the number of employees, achieving its goal of reducing the number of employees, improving efficiency and guaranteeing safety. New mines made great efforts to promote the use of mechanization, automation, informatisation and intelligence, realising safety and efficiency for real.

In 2017, China Coal Energy still made safety investment up to RMB1.596 billion in total, thereby establishing a basis for creating a safe production environment.



Safety Inspection

Strengthening Safety Training

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

By focusing on new regulations and standards, the Company organised two periods of training classes for mine-level and above safety managers as well as compiled, printed and distributed over 2,000 books of typical accident cases for its employees to study. The Company also held a total of 4,133 safety trainings with its entire staff taking turns to participate in the trainings and a total of 287 activities including safety knowledge and skills competitions, of which the number of attendees reached 32,003, further improving frontline employees' safety skills.



Strengthening the Management of Emergency

China Coal Group's first coal mine rescue skills competition and coal chemical rescue skills competition was held at Pingshuo Group and China Coal Mengda Company, providing hands-on experience for enhancing the capacity of emergency response and rescue. The competitions achieved good results. The Company established China Coal United Team and Shanghai Datun Energy Company Rescue Team which then represented the Company and Jiangsu province in the 11th National Mine Rescue Skills Competition, both achieving outstanding results. All units formulated and amended 523 emergency plans, made 24,112 employee emergency handling cards as well as organised 1,008 emergency drills of gas explosion, water leaking, fires, leaking and explosion of dangerous chemicals, of which the number of attendees reached over 28,000, further improving emergency rescue capacity. Shaanxi Company steadily promoted the construction of Yulin Base for dangerous chemical emergency rescue, ranking top among the construction of 15 bases nationwide.





Case Study _____

China Coal Energy Held the First Coal Mine Rescue Skills Competition

On June 27, the opening ceremony of China Coal Energy's first coal mine rescue skills competition was held at Pingshuo Group's rescue centre. National Mine Rescue Control Centre, Shanxi Administration of Coal Mine Safety, Shuozhou Coal Mine Safety Bureau and the Company's leaders attended the opening ceremony.

Six teams from companies including Pingshuo Group and Shanghai Datun Energy Company, with a total of 54 participants, took part in the competition which consisted of the following parts: examinations on theoretical knowledge, respirator operation, simulated disaster rescue and comprehensive physical agility.



Coal Mine Rescue Skills Competition

During the competition, all participating teams showed team, daring and fighting spirit, and participants displayed outstanding rescue skills. Friendship was achieved, and high levels of skills were demonstrated. Following three days fierce competition, winners of all types of awards were decided.

Participants with excellent performance in the competition represented the Company and took part in the 11th National Mine Rescue Skills Competition in Hebei province in September and once again achieved outstanding results.

Performance in Safety Responsibilities

Safety Investment in 2014-2017

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

Mortality rate of coal production per million tonnes in 2012-2017

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

Building a Green China Coal Energy with Low-carbon Development

Reducing Emissions and Controlling Pollution Strenuously Saving Energy Resources Managing Ecological Environment Performance in Environmental Responsibilities

Environmental Responsibilities



Comments from Stakeholder

"China Coal Energy has formulated the Outline for Green Development, improved the "Green China Coal Energy" management system, and established green mines. The existing nine coal mines were determined as national pilot units for green mines, achieving green mining of black coal."

Reporter of China Energy News Zhu Yan

Always adhering to the national ecological civilisation construction strategy and the green development concept of "building a green China Coal Energy to sustain the ecological balance in nature", China Coal Energy has promoted scientific mining methods, efficient resources utilisation, clean production processes and ecological mining areas, strengthened environmental management, furthered energy conservation and consumption reduction, developed recycling economy, built ecological mining areas, and tried to achieve the coordinated development of resource development and ecological environment.

Reducing Emissions and Controlling Pollution Strenuously

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. Seven subsidiaries of the Company are key state-monitored companies, all of which are exhaust-emission companies and are mainly located in Jiangsu, Shanxi, Inner Mongolia and Shaanxi.

The Company's emissions are mainly sulfur dioxide, nitrogen oxides, chemical oxygen demand, ammonia nitrogen and so on. In 2017, the Company produced 8,451 tonnes of sulfur dioxide, 6,523 tonnes of nitrogen oxides, 521 tonnes of chemical oxygen demand, and 40 tonnes of ammonia nitrogen, which all dropped significantly year-on-year.

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 clarifying 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 NDRC, the Company is currently conducting inspection on greenhouse gas data from 2016 to 2017. After the inspection, the Company needs to solicit opinions from relevant parties. The current statistics are inaccurate and 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 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. China Coal Zhangjiakou Coal Mining Machinery Company straightened out the process of the generation and disposal of hazardous waste and formulated corresponding measures. In 2017, 106 tonnes of hazardous wastes were generated and all of them were disposed of in a standardised manner.

Non-hazardous waste

The non-hazardous waste produced by the Company is mainly coal gangue. The Company comprehensively has 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 2017, the Company produced 27.47 million tonnes of coal gangue, with 0.36 tonnes of coal gangue produced for one tonne of commercial coal on average, and with a comprehensive utilisation of 24.41 million tonnes and a comprehensive utilisation rate of 88.9%.

Air 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 fully carried out power plant gas treatment, industrial coal-fired boiler upgrading and coal dust control. As a result, the Company reached the standards for the discharge of main pollutants, the discharge amount significantly declined, and the air quality in the industrial and mining area 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 are the Emission Standard for Pollutants from Coal Industry (GB20426-2006) and the Integrated Wastewater Discharge Standard (GB8978-1996). 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 production water used by coal chemical companies in the Ordos area was mainly treated mine water and achieved "zero" emission of waste water. The salt separating from strong brine projects of China Coal Yuanxing Company and Ordos Energy Chemical Company were put into operation, which made outstanding contributions to solve the problem of "mixed salt" treatment in the coal chemical industry. In 2017, the Company

produced 40.43 million tonnes of mine water with a comprehensive utilisation of about 24.75 million tonnes and a comprehensive utilisation rate of 61.2%.



Strong Brine Treatment Facilities in Coal Chemical Company

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 2017, the sulfur dioxide, nitrogen oxides, chemical oxygen demand, and ammonia nitrogen emissions of the Company decreased by 23.3%, 14.1%, 38.7%, and 52.2% 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 and semi-continuous manufacturing, to achieve exploiting coal resources to its fullest extent. 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.

The coal chemical industry has 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.

Electricity industry has adopted large-capacity and environmentfriendly units to build low calorific value coal and pit-mouth power generation projects. Existing coal-fired power plants have implemented ultra-low emission and energy-saving upgrading, further improving the level of energy efficiency and 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 2017, the Company's comprehensive energy consumption was 8.08 million tonnes of standard coal, of which coal consumption accounted for 84.5% and electricity consumption for raw coal production was 4.82kg standard coal/tonne, leading the rest of the industry.

Coal saving

The Company conducted overall planning for regional heating by using residual heat of power plants, and promoting the usage of centralised heating in place of medium and small boilers. The Company strengthened the sealing measures in coal transportation and storage to reduce coal loss. Muduchaideng Coal Mine of Northwest energy company, implemented energy-saving heat supply upgrading by adopting the contract energy management model. Muduchaideng Coal Mine annually saved 7,400 tonnes of standard coal and reduced operating expenses by RMB45.40 million.

Power saving

The Company eliminated and replaced backward electrical equipment to increase the energy efficiency. The Company also strengthened power usage management of on-peak and off-peak periods to reduce power costs. China Coal Shaanxi Company implemented the optimisation of the steam system and saved RMB11 million annually. China Coal Yuanxing Company launched a energy-saving upgrading project of circulating water cooling towers, saving 2 million kilowatt hours annually.

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, implemented water-use plans and target management, strengthened the treatment and regional recycling of mine water to replace natural water sources such as surface water, and promoted advanced water-saving technologies and equipment, so as to achieve cascade utilisation and recycling of water resources, improve water use efficiency, and reduce fresh water consumption. China Coal Ordos Energy Chemical Company consumed a total of 8.03 million tonnes fresh water in 2017, and fresh water consumption per tonne of urea products was 4 tonnes, keeping ahead in the industry.

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 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

Managing Ecological Environment

The development of coal resources will inevitably 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 and 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 2017, 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.

Case Study -

Land reclamation of mines in Pingshuo mining area recovered the ecological environment

Pingshuo Group adhered to the simultaneous planning, simultaneous implementation, and simultaneous development of ecological reconstruction and economic construction, and realised the integration of "mining, transporting, dumping, and reclaiming", which recovered the ecological environment of mines after mining, and set a good example for the ecological restoration and management in mining areas of Loess Plateau in Shanxi, Shaanxi and Inner Mongolia.

Since opening the mine, the company has invested a total of RMB2 billion for ecological rehabilitation. As a result, more than 40,000 mu of land have been reclaimed, and over 20,000 mu of subsidence have been managed. Over 60,000 mu of forest have been planted around the mining area. The vegetation coverage rate in the waste dump area has reached above 90%, which is much higher than that of the original area of less than 10%. After the original deserted mining area was developed, soil fertility, soil and water conservation, and vegetation varieties were all improved compared to the figures before development. Therefore, Pingshuo mining area was listed as demonstration projects by the Chinese coal and environmental protection authorities. According to a survey conducted by the Shanxi Institute of Biology, there are 213 species of plants, more than 600 species of insects, and more than 30 species of animals in the Pingshuo mining area, increasing the biodiversity of the mining area.

On the basis of ecological restoration and focusing on land reclamation, the company has built intelligent greenhouse area of 16,000 square metres, 300 solar greenhouses, museums and artificial lakes, and carried out various kinds of planting and breeding, with an annual output of more than 3,000,000 kilograms of vegetables and more than 4,000 lambs, with an aim to create an ecological industrial chain of "agriculture-forestry-stock raising-pharmaceutical-eco-tourism".

On August 3, 2017, CCTV news broadcasted the aerial shots of a thousand mu of green land in the Pingshuo mining area, which introduced the company's practice of mining and reclaiming at the same time, removing the gold and silver mountains and leading behind the lucid waters and lush mountains. On October 18, the Key Technologies and Application of the 30-year Land Reclamation and Ecological Rehabilitation in the Extra-large Coal Mining Area of Loess Plateau participated by the Pingshuo Group received the first prize for Land and Resources Science and Technology Award from the Ministry of Land and Resources. On October 21, Pingshuo Group was granted the first "Ecological Mine – Land Reclamation and Ecological Restoration Pioneer" title. On December 15, Pingshuo Group was awarded as "The Most Influential Green Enterprise Brand in China in 2017".



the Certificate of "Green Enterprise Brand"





Land Reclamation of Pingshuo Mining Area

Performance in Environmental Responsibilities

Name of Indicator	2015	2016	2017
Integrated energy consumption per RMB10,000 production output (TCE/ ten thousand yuan)	2.237	1.606	1.352
Recovery rate of mining area of coal mine (%)	89.1	91.5	91.5
Utilisation rate of coal gangue (%)	98.8	84.9	88.9
Utilisation rate of mine water (%)	75.4	79.6	61.2
Emission volume of sulphur dioxide (tonne)	13,045	11,019	8,451
Emission volume of NOx (tonne)	12,641	7,596	6,523
Emission volume of chemical oxygen demand (tonne)	1,034	849	521
Ammonia nitrogen (tonne)	79	83	40

Note:

1. As required by the superior management authority, the integrated energy consumption per RMB10,000 production output in 2015 was calculated based on the price of 2010 and that in 2016 and 2017 was calculated based on the price of 2015.

2. Recovery rate of mining area of coal mine included underground mines and open pit mines.

3. The decrease in mine water utilisation rate compared to the same period was due to the inclusion of the data of new coal mines put into operation. As the new coal mine had a large water inflow, the Company's mine water produced in 2017 increased by 150% year-on-year, and the mine water utilisation rate increased by 93% year-on-year.

Innovation-driven Development to Take the Lead in the Industry

Enhancing Technological Innovation Ability Strengthening Key Technology Research and Development Leading Progress in Industry and Technology Deepening Innovation and Entrepreneurship Activities Performance in Innovation Responsibilities

Innovation Responsibilities





Comments from Stakeholder

"Innovation is forever the theme of development. A Company without innovation and the achievement of results will have no development. Developing individuals' advantage in technology innovation into a mass advantage and fully improving the quality of the members of innovation studio will make greater contribution to continually push the Company forward. "

Qi Feng, representative of the 19th National Congress of CPC and leader of the China Coal Zhangjiakou Coal Mining Machinery Company Limited's Digital Control Processing Innovation Studio

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 driving the enterprise development, transformation and upgrading, continuously deepened the integration model of industry-university-research which focuses on enterprises and is guided by the market, actively explored new paths for in-depth blending of high technology and industry, quickened new and old kinetic energy conversion, and strived to achieve the new change from the production-driven enterprise to the technology-driven enterprise.

Enhancing Technological Innovation Ability

With the improvement of the independent innovation capability as the core, the demand of industrial technology as the orientation, the research institutions' development of the key core technology as the lead, the breakthrough of the production line technology R&D of grassroots innovation studios as the foundation, demonstration bases for "mass entrepreneurship and innovation" and specialised maker space as main body of result incubator, and the strategic cooperation of industry-university-research as its support, China Coal Energy has built and improved the technological innovation system with the unique characteristics of China Coal Energy which combines independent innovation, collaborative innovation and mass technical innovation in one.

In 2017, the Company promoted the technology leading strategy and implemented the topics of China's key research and development plan and 5 topics of China's 973 Plan with the support of the R&D advantages of the National Energy Mining Equipment Research, Development and Experiment Centre. China Coal Mengda Chemical Company and China Coal Ordos Energy Chemical Company were recognised as high-tech enterprises by government departments, laying a solid foundation for technology innovation and new product development by new coal chemical companies. The "High-end Intelligent Mining Equipment Engineering and Technology Research Centre" construction project and "Coal Industry High-end Transportation Equipment Technology and Engineering Research Centre" construction project of China Coal Zhangjiakou Coal Mining Machinery Company, a subsidiary of the Company, have passed the project establishment review of Hebei province and China National Coal Association, which marked a new progress in our capacity of R&D on high-end and intelligent coal machines. China Coal Beijing Mining Equipment Company, a subsidiary of the Company and Innovation Centre" and the CNAS lab was approved for carrying out expanded projects, which injected a new impetus to the improvement of the design and innovation efficiency and experiment capacity of the enterprise.



Strengthening Key Technology Research and Development

In 2017, under the guidelines of solving problems, ensuring practicality and focusing on effectiveness, China Coal Energy organised technical R&D campaigns for key technical projects of the Company, second level enterprise technical projects and third level technical problems of production site, including 24 key technical projects of the Company and 162 second level enterprise technical projects, achieved great results in the principal business fields, and upgraded its scientific and technological security, support and service capacities.

Ensuring safe production. The key technical projects of the Company, such as the Comprehensive Gas Treatment Technology for Wangjialing Mine effectively ensured the safety and efficient production of Wangjialing Mine, while projects such as Study on the Movement Control and Mining Technology of the Overlying Rock in the Soft Rock Layer of Mines effectively ensured safe and efficient construction and mining of the Company's mines in Inner Mongolia and Shaanxi.


Supporting transformation and upgrade. With the key technological project, "Key Technology for Efficient and Rapid Excavation in Coal Roadway", the Company created a new record of advancing 1031 metres in a month in the coal roadway under the similar geological conditions in Inner Mongolia and Shaanxi areas. The chemical businesses of the Company took the lead in the coal chemical industry to successfully develop polyethylene chrome-related high-end products, filling the technical gap in the industry. We successfully developed and applied the 8.2 metre super mining height intelligent AFC and the first 8-metre mining height coal shearer in our country, which improved the competitive edge of the Company and led the progress of the industry. The successful development of the first set of integrated mechanised complete equipment for bauxite mines exploitation in the world provided demonstration for the industrial transformation development of the equipment business of the Company.

Improving quality and efficiency in service. The key technological project of the 10-million-tonne level efficient and comprehensive key mining technology innovation and industrialization demonstration project has reached an overall operating ratio of 90% and reduced the electrical energy consumption per tonne of raw coal by 41.51% after running for 1 year in the demonstration working face of Pingshuo mining area (19108), remaining a leading position in the industry. The coal chemical enterprises developed 14 new polyolefin products, with a total output of 155,870 tonnes and the average selling price of each tonne RMB107 higher than general products. Equipment nationalization brought extra over RMB80 million in revenue.

In 2017, the Company achieved multiple results in high-level and important technology, and its core technical competence was further improved. The Company received 20 industry and provincial level science and technology progress awards: 2 innovation results were granted the first prize of Science and Technology Award by China National Coal Association. The Company made application for 206 patents, including 58 invention patents, and was granted 143 patent licenses, including 46 invention patents.



World's First Set of Integrated Mechanised Complete Equipment for Bauxite Mines Exploitation

Leading Progress in Industry and Technology

China Coal Energy actively played industrial chains' coordination advantage, achieving breakthroughs in areas including technology theories, technology research and development and industrialized application of such technology and pushing and setting an example for the overall improvement in equipment, safety and production efficiency in China's coal industry.

The coordinated excavation technology of open-pit and underground mining was successfully developed, realising effective recovery of the overlaying coal resources located at the open-pit slope and non-mining area. Pingshuo Mine achieved a recovery rate of 93% of coal resources.

The complete set technology and equipment for automatic unmanned working surface for thin coal beds was developed, and its application was popularized, establishing a low-cost technology system for excavation of thin coal beds featuring "short roadheading, low movement and thin excavation", reducing excavation height for coal entry roadways and amount of broken rocks as well as improving coal recovery ratio. During the experiment, gob-side entry retaining formed by roof cut and pressure releasing technology was applied, retaining a total of 19,700 metres of entry, reducing the excavation of 21,100 metres of entry roadways and increasing the excavation of 1.04 million tonnes of coal pillars.

Modernized Technology Standards for Coal Mine Safety and Efficiency was discussed and formulated, creating optimised theoretical system and methods for coal mine low-cost technology and forming coal mine excavation technology system where excavation automation, system control and management intelligence was integrated.



China Coal Equipment Company: New Equipment Pushes Forward Technology Improvement in the Coal Industry

As the government implemented the supply-side structural reform and de-capacity policies as well as the reform of coal excavation technology, the coal industry is shifting to large, efficient, automate, green and intensive modernized wells. Led by "Made in China 2025", China Coal Equipment Company paid close attention to industry development trend and client demand, strengthened independent innovation as well as pushed forward the development of complete sets of coal mine work equipment to being high-end, intelligent, green, nationalized and internationalized, continuing to maintain the leading position in coal machine manufacturing industry.

Research and development capability for major coal mining equipment achieved essential breakthroughs. The only research and development lab centre for national energy source excavator machinery equipment in China's coal machine industry was established and lab environment for the simulation of coal mine working condition on the ground was built for the first time, providing an important platform for supporting enterprise technology research and development



Complete Set of 8.8-metre Ultra Cutting Height Intelligent Equipment

and technology development in the service industry as well as taking charge of major national research and development tasks. In 2017, the Company was in charge of implementing topics of China's 973 Plan and key national research and development plans as well as China Coal Group Equipment Company's key technology projects, a total of 27 topics and projects, completing its annual research and development task.

Breakthroughs for the research and development of high-end coal mining equipment were achieved again, and complete set of 8.8-metre ultra cutting height intelligent equipment with world's largest installed power, excavation height and excavation capacity also made important breakthroughs. The Company took the lead in the world in technology including coal amount monitoring, variable-frequency soft start and speed regulation, crushing of large blocks of coal and automated and intelligent control, with an annual output of over 15 million tonnes and successfully applied to large coal companies in China.

The Company paid close attention to client needs while improving innovation and efficiency. SGZ1400/4800 complete set of AFC was used for 8.2-metre ultra cutting height excavation of ultra thick coal beds at Yankuang Group's Jinjitan Mine, innovation and breakthroughs were made in areas including intelligent technology application, efficiency, usage life and clean excavation, arousing widespread attention from the industry. ZY26000/40/88D intelligent hydraulic roof support for ultra cutting height overcame difficulties in a series of key technology, fully acclaimed by Shendong client. MG1000/2550-GWD ultra cutting height coal shearer recorded smooth operation at Yitai Group in Inner Mongolia, setting a record high of 30,000 tonnes daily output and achieving a maximum of 700,000 tonnes of monthly output, and the whole-equipment technology performance reached an internationally advanced level.



Deepening Innovation and Entrepreneurship Activities

In 2017, the Company carefully implemented China Coal Group Guidance on Promotion of mass entrepreneurship and innovation, held "Promotion of mass entrepreneurship and innovation" and Excellent Results Publishing Meeting at Worksite, pushed for all companies to carry out their own innovation and entrepreneurship activities, continually energising its employees for entrepreneurship and innovation on their job and to fulfil their potential.

Motivating entrepreneurship and innovation. The subordinate enterprises established and improved the "mass entrepreneurship and innovation" working system, and systematically promoted the "mass entrepreneurship and innovation" works 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. The Company preliminarily formed a unique "mass entrepreneurship and innovation" mode of China Coal Energy of practical innovation, platform incubation, base demonstration and industry promotion, featuring integration of innovation, entrepreneurship and benefit-making.

Promoting the construction of "mass entrepreneurship and innovation" base. Through promoting the construction of "mass entrepreneurship and innovation" demonstration base, China Coal Zhangjiakou Coal Mining Machinery Company, a subsidiary of the Company, made significant breakthroughs in a series of leading coal machinery new products by following the market orientation, mastering the industry development trend and focusing on the high-end intelligent mining technology and equipment and noncoal diversified complete equipment under the guidance of Made in China 2025, achieving breakthroughs in a batch of leading new coal machine equipment such as 3×1600kw intelligent AFC and providing typical demonstration for the "mass entrepreneurship and innovation" works of the Company.

Achieving remarkable benefits through "mass entrepreneurship and innovation" activities. In 2017, the Company accumulatively established 79 innovation studios for grassroots employees, organised extensive production site technology R&D campaigns, "Five small technology R&Ds" and a total of over 6,000 reasonable suggestion activities, recording over RMB200 million in economic benefits. The Company organised the selection and promotion of 87 outstanding "mass entrepreneurship and innovation" results and the application of the 15 first-batch advanced and applicable technological results, and preliminarily established the technical innovation promotion channels among the enterprises, thus supporting the sharing, transformation and application of the technical innovation results in the whole company, and effectively quickening the transformation of such innovation achievements into productivity and economics benefits.



"Entrepreneurship and Innovation Among the Public" Demonstration Base

Performance in Innovation Responsibilities

Name of Indicator	2015	2016	2017
Technological investment (RMB100 million)	10.83	9.48	12.81
Number of technological advancement awards above industry level (items)	22	14	20
Number of patents (items)	241	190	143

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

"As a party representative and a frontline industry worker, I will carefully fulfill my responsibility as a party representative, carry out the spirit of striving for perfection and craftsman spirit in the new era, actively play the leading role of a party member among workers and showcase industrial workers' elegance in the new era."

Zhang Yadong, representative of the 19th CPC National Congress Meeting, CNC lathe leader at Beijing Coal Mining Machinery Company's hydraulic pressure component sub-plant

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. China Coal Energy forbids all forms of workplace discrimination, and there are no instances of child labour and forced labour. Besides, China Coal Energy actively provides employment opportunities for people with ethnic minorities and veterans. China Coal Energy protects the rights of female employees by equally remunerating employees who hold the same position, regardless of gender, as well as by forbidding hiring female employees to work in underground mines. China Coal Energy establishes and improves the system for leave and holidays to ensure that employees 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 2017. 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 2017, China Coal Energy had a total of 46,838 employees, 7,925 of which were female employees, accounting for 17%. In 2017, China Coal Energy entered into employment contracts with 100% of its employees.

China Coal Energy enhances the competition-based system for picking the talents and vigorously promotes a market-oriented approach in talent acquisition and competition-based employment. In 2017, the Company's multiple departments including strategy planning department, operation management department, purchase centre, electricity management department and finance department launched a full open competitive employment and public recruitment. The subordinate enterprises, such as China Coal Development Company, China Coal Northwest Energy Company and China Coal Huajin Company etc., practised open recruitment and achieved good results.

Facilitating democratic management

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

Placing strong emphasis on occupational health

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.

Fullfilling 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 ensurance methods, fully fullfilling 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' selfprotection 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.

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.

In terms of the strategy in relation to employees remuneration, the Company upheld the basic principle of "salary rises as benefits rise, compensation drops as benefits drop" and proactively perfected a dynamic allocation system linking salaries to corporate earnings, job value and individual performance. The Company insisted on performance-oriented principle of distribution, broadened the boundary of salary control and strictly controlled total labour costs in order to enhance management efficiency.

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.

Case Study

Northwest Energy Company: Handling Issues from the Source, Protecting Employees' Occupational Health

Following relevant requirements by the responsibility mechanism for occupational hazard prevention and treatment, Northwest Energy Company clarified the position responsibility mechanism for each department as well as further refined and standardised subsidiaries' responsibilities for occupational hazard prevention and treatment, ensuring all work for occupational hazard prevention and treatment was carried out. In 2017, the company amended and perfected the management system for the prevention and treatment for 13 occupational hazards in line with Occupational Disease Prevention and Treatment Methods and Regulations for the Prevention and Treatment of Occupational Hazards in Coal Mine Workplace. Northwest Energy Company added high-pressure mist spray for excavation equipment, which utilised clarified water pump to provide pressure to allow excavation equipment's outer mist spray and processed high-pressure mist spray to reduce dust simultaneously, reducing 40% of dust installed compared to before. Online dust monitoring system was installed in return air part of mining head, realising 24-hour monitoring of dust concentration. Noise detection device was equipped to carry out regular noise detection, noise elimination device was set to solve the issue of noise exceeding standards from some equipment, and operators at noisy places were requested to wear soundproof products.



Promoting Career Development of Employees

Improving overall quality of employees

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

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

We reinforced skill training on various types of work and professions in mining and processing of coal, electrical engineering and coal chemical operation through coordinated use of internal training resources. "Training for excellent team leaders" and "Training for 'Titanium' blue-collar elites" were held. After the trainees returned to their enterprises, they played positive roles at production fronts of technological transformation and safety management.

In 2017, the Company continued to perfect the construction of training system and focused on strengthening the ideological education, management capability and safe production awareness of its management staff and front-line staff. Meanwhile, the Company focused on cultivating outstanding young cadres to reserve talents for the Company's development, and enriched the various training contents by Party building, production, safety, management and other trainings. 829 management staffs participated in the face-to-face training, while over 2,300 employees including the management team members of the secondary enterprises, department heads from the headquarters and middle-level cadres of the enterprises participated in the online course learning.



Coal Chemical Training Site

Up to the end of 2017, China Coal Energy boasted of 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, 33 "master technicians in the coal industry", 4 "excellent technicians in the coal industry" and 20 studios for master technician in the coal industry, and 4 employees awarded the honourary 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 2017, a total of 677 employees participated in 6 series of professional title evaluation covering, inter alia, engineering, political and ideological work and economy, and 529 of them passed the evaluation, with a passing rate of 78.14%. Professional skills appraisal management is also strengthened. In 2017, 456 employees

from coal, electrical and chemical industry technicians and senior technicians were assessed for the qualification of respective work types, and 233 of them passed, with a passing rate of 51.09%.

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.

Work and life balance

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





"China Coal Cup" Swimming Competition



Pingshuo Mining Area 30th Anniversary Entertainment Evening Gala





Helping employees in need

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



Expressing Solicitude to Retired Employees

Performance in Employee Responsibilities

Name of indicator	2015	2016	2017
Number of on-the-job employees	52,648	47,113	46,838
Contract signing rate (%)	100	100	100
Social insurance coverage (%)	100	100	100
Trade union participation rate (%)	100	100	100
Staff turnover rate (%)	1.6	2	1.7

Benefiting the People's Livelihood and Repaying the Society

Benefiting Local People's Livelihood Supporting Frontier Development Facilitating Targeted Poverty Alleviation Developing the Social Benefit Performance in Community Responsibilities

Community Responsibilities





Comments from Stakeholder

"The working group of China Coal has done a lot of practical and good things for our village, from road construction and repair, street lamp installation, alkali discharge channel reformation, to installation of tap water...the village has taken on a new look, and our life is becoming better and better. The working group of China Coal is our family!"

Aili Kaimu, Secretary of the Village Party Branch of Akesu Prefecture in Xinjiang Uygur Autonomous Region

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 2017, the total social contribution of China Coal Energy reached RMB26.619 billion, including paying taxes, labour costs, realised net profit and interest expenses, and the social contribution value per share reached RMB2.01. All kinds of taxes and fees amounted to RMB10.79 billion, accounting for 13.3% of the operating revenue. In 2017, the donation made to the society and poverty alleviation funds utilised by China Coal Energy amounted to RMB4.403 million.

Promoting local employment

China Coal Energy has always been insisting on the employment modes including open recruitment and labour dispatching to actively create and offer job opportunities in the places where its businesses are performed. Implementing relevant local policies, China Coal Shaanxi Company gives priority to introducing local talents as regular employees to promote the employment of Shaanxi Province and Yulin City. Now, over 590 of registered employees of this company are from Shaanxi province (including over 451 employees from Yulin), constituting almost half of the total employees. Shaanxi Company also works together with local employment agencies to give priority to the recruitment of local workers for outsourced operations, and 40% of the workers come from Yulin.

Strengthening local purchase

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

Building harmonious community

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

Supporting Frontier Development

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

In 2017, China Coal Energy Xinjiang Branch transitioned from foundation construction phase to foundation construction and production phase. In the premise of ensuring safety, China Coal Energy Xinjiang Branch realised the stable and orderly production and operation. A total of 5.177 billion kilowatt/hour power generation and 4.828 billion kilowatt/hour on-grid electricity power as well as an output of 4.1395 million tonnes of coal production and sales of 4.1404 million tonnes of commercial coal were achieved in the whole year, driving the development of local economy. The construction of the second Power Plant located in the north of Wucai Bay, Zhundong, Xinjiang was pushed forward. In 2017, the second Power Plant located in the north of RMB1.42 billion (including equity investment), with its total investment having reached over RMB2.5 billion since the start of the project.

In accordance with the relevant requirements of Xinjiang Uyghur Autonomous Region, China Coal Energy Xinjiang Branch conscientiously carries out the activity of "Visiting the People, Benefiting People's Livelihood and Gaining People's Support", and has been sending the working groups to Tuowanke Ailaimu Kuduke Village, Ayi Bage Town, Awati County for four consecutive years. China Coal's working groups for Visiting the People, Benefiting People's Livelihood and Gaining People's Support" fully followed the first secretary's requirements of forming a united strength for discussing village affairs, maintaining stability, handling livelihoodrelated affairs, helping those in need, unifying all ethnics and increasing income together. In 2017, a total fund of about RMB2 million was invested; connection was built with Lutai Cotton Industry, sending over 100 impoverished villagers to work in the company and further lifting them out of poverty; 6 families in Nileke, Yili shook off poverty. Hami Energy Company and Yili Energy Company actively carried out activities including ethnic employees building bonds with each other, masters training apprentices and visits offered in holidays, enhancing unity among different ethnics and improving the awareness from ethnic minorities of employees, language level and work ability and contributing to the stability of Xinjiang Branch through one-to-one and one-to-many master-apprentice model.



Constructing the Second Power Plant in the North of Wucai Bay, Zhundong



Facilitating Targeted Poverty Alleviation

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

Pingshuo Group donated RMB560,000 to targeted villages to help and support among which Antaibao Open Pit Mine donated RMB200,000 for the construction of photovoltaic projects for all families in these villages, Anjialing Open Pit Mine donated RMB200,000 for the development of potato planting project, East Open Pit Mine donated RMB100,000 for the development of Chinese medical herb planting project and second underground mine donated RMB60,000 for the construction of mills in villages.

China Coal Shaanxi Company donated RMB500,000 to targeted villages to help for the building of infrastructure facilities including production roads, cultural plazas and health clinics and the development of crop and coarse grain processing industry, helping local people to increase their income and shake off poverty.

China Coal Energy Xinjiang Branch invested RMB100,000 in Boer

Bosong Village, its targeted village for poverty relief, purchasing 100 ewes, increasing the village's income by RMB30,000, and effectively solidifying the village's poverty relief results.

Northwest Energy Company donated RMB970,000 to local Hope Schools and RMB360,000 worth of "coal for love" to those in need.

China Coal Mengda New Energy & Company Limited donated RMB50,000 to the local village in poverty for the construction of activities rooms in the village.

Shanxi Zhongxin Tangshangou Coal Industry Company Limited arranged donation fund of RMB490,000 to support the development of pig breeding project in its targeted villages for poverty relief.

In addition, the parent company (China Coal Group) carried out poverty relief work in the following targeted areas: Yinjiang County in Guizhou province, Wei County, Zhaojiapeng District in Zhuolu County in Hebei province. In 2017, the parent company continued to increase efforts in poverty relief work in designated areas, helping and supporting three counties (districts) with about RMB3 million, up by RMB1.2 million compared to 2016, and selected temporary vice county heads and in-village first secretaries to coordinate, organise and implement poverty relief projects, making positive contribution to the three areas' fight to win the poverty relief battle.



China Coal Energy Xinjiang Branch helping the poor people

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 Study -

Biggest Flood in Yulin in a Hundred Years, China Coal Rescue Showing Great Love

On July 26, 2017, due to extreme climate, Suide County, Yulin City, Shaanxi had heavy and torrential rain, recording the biggest flood disaster in a hundred years. All places were flooded and covered in an ocean of water, with infrastructure facilities severely damaged and people's life and poverty suffering huge loss.

China Coal stepped forward courageously during this crisis. China Coal Shaanxi Company urgently deployed disaster relief tasks, immediately organised "China Coal Rescue Team", prepared rescue equipment themselves, fully ensuring emergency rescue and disaster relief. "China Coal Rescue Team" fully carried forward the daring spirit and the spirit to fight continuously, actively took urgent, difficult and risky tasks as well as carried out safety screening in a few areas most affected by the flood, involving dozens of residential buildings and as many as 10,000 residents, becoming the pioneer team during flood fighting and disaster relief.

While carrying out emergency rescue, China Coal Shaanxi Company donated RMB1 million to affected areas in Yulin and organised all its employees to make donations, a total of RMB430,000, to people living in affected areas, showing China Coal Energy's responsibility and selfless love.



China Coal Shaanxi Company Flood Rescue Team



Supporting the social welfare

China Coal Energy actively participates in social benefit undertakings. With a donation management system in place, the Company selects public welfare projects following the principle of "willingness, clear responsibilities, ability-based actions, creditability," and based on the Company's annual business performance. China Coal Energy helps and supports the poverty-stricken people through donation of money and goods, and advocates cultural and sports undertakings, serving the society wholeheartedly. In 2017, China Coal Energy carried out public welfare activities within its capability and the donation made as well as poverty alleviation funds utilised amounted to RMB4.403 million, which was mainly used for poverty alleviation and supporting the cultural and sports undertakings where the key projects were located. In August 2017, the Company and its companies in Ordos donated RMB800,000 to the 13th Conference of the Contracting Parties of Nations Convention to Combat Desertification.

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.



Carrying out Voluntary Service Activities

Performance in Community Responsibilities

Name of indicator	2015	2016	2017
Tax paid (RMB100 million)	61.5	62.74	107.90
Donation and poverty alleviation (RMB10 thousand)	127.34	137.90	440.30
Total social contribution (RMB100 million)	165.19	226.27	266.19
Social contribution per share (RMB)	1.34	1.71	2.01



2018 Outlook

In 2018, the world economy demonstrates an obvious signal of recovery, and the domestic economy still maintains rapid growth. In terms of the existing coal market, with the deepening progress of the supply-side structural reform, the coal supply may be insufficient in certain periods and certain regions, and it is estimated that the coal price will be maintained at reasonable range on an on-going basis. In the long run. China's economy will enter the high-quality development stage in the new era, and the economic development fundamentals will continue to improve. With the constant optimisation of the energy structure of our country, the coal consumption demand growth will be slowing down. However, as one of the fundamental energy resources of our country, the dominant position of coal will not be changed. As a professional coal management enterprise, the Company will seize the new opportunities in the new era, optimise its industrial structure, accelerate the transformation and upgrade, foster new driving forces for enterprise, lead the new industry development.

The year of 2018 is the first year to implement the spirit of the 19th National Congress of CPC and a key year for the Company to implement "13th Five-Year Plan". Under the guidance of Xi Jinping Thought on Socialism with Chinese Characteristics for a New Era, the Company will focus on "cutting overcapacity, destocking, deleveraging, reducing costs, and remedying the weakness" in accordance with the general requirements of "quality improve quality and efficiency to increase its earnings level, deepen the reform, encourage innovations and entrepreneurship and inspire corporate vitality, uphold the safe production and stable development of the enterprise as well as promote the high-quality development of the Company.

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. The Company will further implement the measures that comply with the Opinions on Promoting the Reform and Development in Safe Production by the Central Committee of the Communist Party of China and the State Council in order to firmly establish a "red line" perception and "bottom line" mind-set as to safety, thus enhancing the concept of safe development and pursuing sound accountability for safe production. We will highlight key control areas and underline the prevention and handling of major disasters. We will strengthen field management to 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 further strengthen our environmental protection work and put into practice the concept of "green development" by improving environmental protection procedures of projects under construction and paying special attention to the construction, operation and maintenance of environmental protection facilities. We will ensure that our operations meet the discharge and emission standard, and strive to build a "resource conservation and environment-friendly" enterprise.

The Company will pursue growth through innovation and stimulate development vitality. The Company will hold technology meetings to summarize the new results and experience for technology innovation in recent years and fully stimulate the Company's innovation vitality. The Company will focus on the development theme of "Safety, Economy and Development", strengthen the construction of innovation capability as well as perfect the Company's innovation system. In addition, the Company will deepen entrepreneurship and innovation activities and actively advocate the culture of innovation to create a new situation for the Company's technology 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 and improved their life and working environment. The Company will continue to focus on improving its employees' livelihood, ensure on-time wage payment, pay insurance premiums according to regulations, and carry out charitable and relief activities to help out distressed employees. The Company will expend effort to provide quality training to its employees, improve the present training system and promote career advancement of all staff.

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





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