



# 中国神华能源股份有限公司 CHINA SHENHUA ENERGY COMPANY LIMITED

(a joint stock limited company incorporated in the People's Republic of China with limited liability)  
Stock Code: 01088

## 2017 CSR Report



Responsibility and  
Dreams

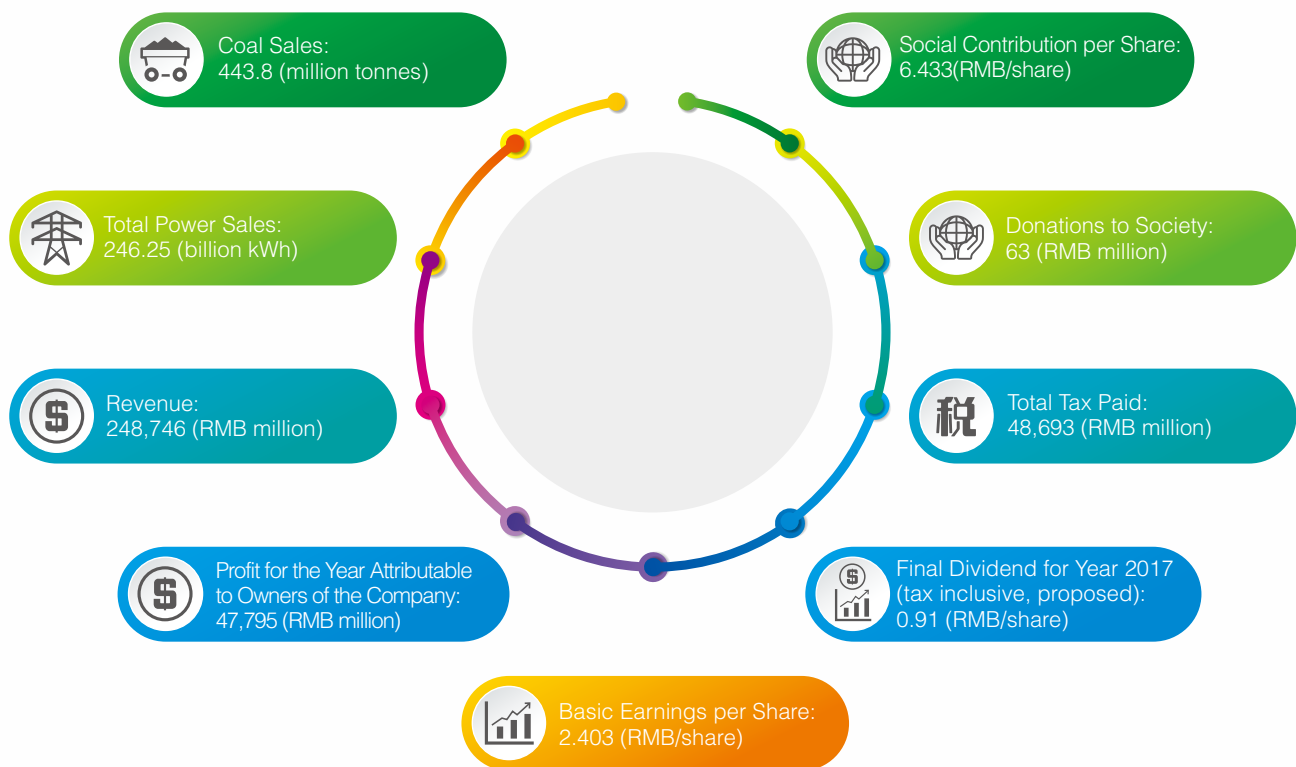




## About the Company

China Shenhua Energy Company Limited, controlled by China Energy Investment Corporation Limited (“CHNENERGY”)<sup>Note</sup>, is cross-listed in both Hong Kong and Shanghai stock exchanges. The headquarter is located in Beijing. It is a coal-based integrated energy company with businesses of coal, power, railway, port, shipping and coal-to-chemicals, primarily engaged in production and sales of coal and electric power, railway, port, shipping as well as coal-to-olefins production.

China Shenhua is the world’s largest listed coal supplier. The Company’s coal business has been regarded as a role model in China in terms of clean, efficient and safe production. China Shenhua also owns a sizable and efficient power generation operation, which serves to complement the Company’s coal business for coordinated development. The Company owns and operates a large transport network integrating railway, port and shipping fleet, creating tremendous synergy and cost advantages for the Company.



Note: The company name of “Shenhua Group Corporation Limited” was officially changed to “China Energy Investment Corporation Limited” on 22 November 2017.

# About the Report

This is the eleventh social responsibility report issued by China Shenhua Energy Company Limited (hereinafter referred to as “China Shenhua” or the “Company”), which mainly discloses information of the Company in aspects of corporate governance, operation in good faith, technological innovation, safe production, employees’ interests, environmental protection and public welfare, with an eye to enhancing communication and liaison with all stakeholders.

The Board and all the Directors of the Company guarantee that the report does not contain any false representation, misleading statement, or major omission, and bear joint and several liabilities for the truthfulness, accuracy and completeness of the content hereof.

## Main Scope of the Report

China Shenhua Energy Company Limited and its subsidiaries, including companies and assets newly acquired or established in 2017. For details of the main scope of the report, please refer to Appendix V of this report.

## Reporting Period

The CSR Report of the Company is issued annually. The reporting period is from 1 January to 31 December 2017.

## Preparation Basis of the Report

“Notice on Strengthening Listed Companies’ Undertaking of Social Responsibilities and Issuance of ‘Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange’”, “Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange”, “Guidelines on Preparation of ‘Corporate Report on Performance of Social Responsibilities’” and “Notice of Information Disclosure in Relation to Further Optimizing Poverty Alleviation Work of Listed Company” issued by the Shanghai Stock Exchange;

“Environmental, Social and Governance Reporting Guide” (“ESG”) issued by the Hong Kong Stock Exchange;

The GRI Standards issued by Global Reporting Initiative (“GRI”).

## Principles of Data Processing

The reporting period of data and statement disclosed in this report is consistent with the reporting period of this report. The financial information contained in this report is sourced from the audited financial report of the Company for 2017. Unless otherwise indicated, Renminbi is the denomination currency in this report. The major indicators on safety and environmental protection of the Company are calculated in accordance with China's regulations or industry standards.

## Assurance

This report has been assured independently by our independent auditor, Deloitte Touche Tohmatsu Certified Public Accountants LLP. The proof, scope, methodology and conclusion of the assurance are included in Appendix IV.

## Language versions and availability of the Report

This report is published in Simplified Chinese, Traditional Chinese and English. The financial data contained in the Simplified Chinese version are extracted from the A-Share financial report of the Company, whereas those in the Traditional Chinese version and English version are extracted from the H-Share financial report of the Company. In case of any other discrepancies, the Simplified Chinese version shall prevail.

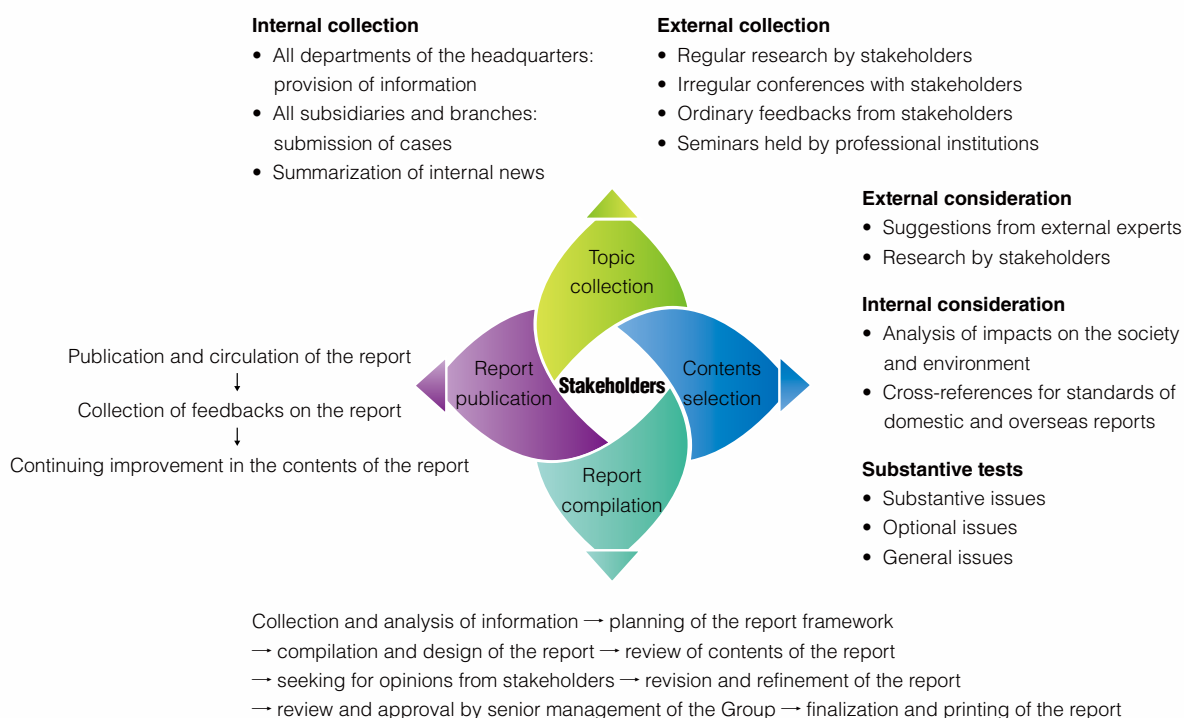
This report is available to stakeholders and the public in a PDF document, which can be downloaded from the websites of the Shanghai Stock Exchange and the Hong Kong Stock Exchange and the official website of China Shenhua ([www.csec.com](http://www.csec.com)). Please email [1088@csec.com](mailto:1088@csec.com) or dial 86-10-5813-3355 to request for a printed copy of this report.

We have taken into consideration the different reading interests and requirements of different stakeholders to the extent possible during the compilation of this report to make it as plain, clear and easy to read as possible. The compilation of this report may not be entirely satisfactory due to various objective constraints. You are welcome to put forward your opinions and suggestions by completing the Feedback Sheet attached with this report. The Company will improve and enhance the report on a best effort basis in the future.

# Compilation of This Report

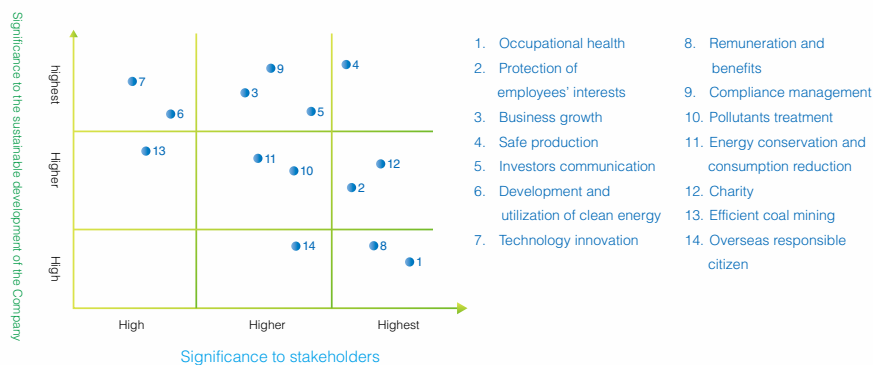
By issuing the CSR Report, China Shenhua proactively responds to the expectation and attention of stakeholders while streamlining the operation and management of the Company, so as to avoid economic, social and environmental risks and enhance the Company's management capability. After publication of the CSR Report every year, the Company solicits opinions from investors, employees, customers and other stakeholders on corporate operation and management as well as report preparation, and adopts those that are reasonable. The replies will be disclosed in the CSR Report of the next year.

## Compiling Procedure



## Identification of Substantive Issues

Based on the relevant standards and documents, policies and regulations on social responsibility and the issues of concern to stakeholders within the year, China Shenhua proactively improved the procedures for identifying substantive issues of social responsibility and determined the contents disclosed in the CSR Report. In accordance with the procedures of "identification, review, ordering", and based on a full understanding of the expectations and appeals of stakeholders, the Company determined the importance of different issues to stakeholders to increase the substantiveness of the report.



# Contents

<b>Chairman's Statement</b>	6	<b>Mission to Care for Employees for a Better Life Together</b>	50
<b>To Fulfill Responsibility and Remain Committed to the Original Aspiration</b>	8	Safeguarding Rights and Interests of Employees	52
CSR Culture	10	Boosting Employees' Career Development	55
CSR Management	11	Caring for the Happiness of Employees	57
Full Integration of Social Responsibility	12	<b>Mission to Care for the Community for Better Well-being</b>	60
CSR Communication	12	Contribution to Targeted Poverty Alleviation	62
Social Contribution per Share	15	The Spirit of Devotion	66
CSR Honors	15	Launch of Overseas Charitable Activities	68
<b>Economic Mission with Quality at the Heart</b>	17	<b>Future Outlook</b>	72
Corporate Governance	18	<b>Appendix</b>	
Operation Compliance	19	Appendix I: Indicator System on Social Responsibility Performance of China Shenhua	73
Efficient Operation	20	Appendix II: GRI Standards Content Index	80
Win-win Cooperation	22	Appendix III: Disclosure Recommendations of Shanghai Stock Exchange and ESG Contents Index of Hong Kong Stock Exchange	85
<b>Safety Mission and Achieve Rock-solid Operation</b>	25	Appendix IV: Independent Assurance Report	88
Safety Management System	26	Appendix V: Major Assets Distribution and Equity Structure	90
Innovation in Safety Technology	27	Appendix VI: Definition	96
Safety Emergency Support	29		
Safety-Oriented Culture	31		
<b>Innovation Mission to Embrace Changes</b>	33		
Innovation of Management System	34		
Nurturing Scientific Research Talents	35		
Breakthroughs in Scientific Research	35		
Science and Technology Exchange and Cooperation	37		
<b>Mission of Environmental Protection for Green and Sharing Development</b>	38		
Optimization of Energy Conservation and Environmental Protection Management	40		
Enhancement of Energy Conservation and Consumption Reduction	43		
Promotion of Water Conservation and Better Efficiency	45		
Strengthening Pollution Prevention	46		
Ecological Development	48		
Responding to Climate Change	49		

## Chairman's Statement

Dear Friends,

It is my pleasure to communicate with all of you. As the new Chairman of China Shenhua Energy Company Limited, I would like to express my sincere gratitude to everyone for your constant attention and support to China Shenhua over the years. I hope we could continue to enjoy your support and help as always, so that China Shenhua will stand on the forefront of the capital market and take strides further down the path of socialism with Chinese characteristics.

Looking back on the unforgettable 2017, we walked, side by side, on a glorious journey. All business segments of China Shenhua witnessed steady growth with remarkable operating results, recording annual revenue of RMB248.746 billion, representing a year-on-year increase of 35.8%, and profit before income tax of RMB73.293 billion, representing a year-on-year increase of 77.7%; safety record continued to lead the global coal industry, fulfilling our commitment to employee safety and the society; business segments such as coal and coal-fired power achieved green development, with 79 ultra-low emission units representing 82.4% of the company's coal fleet, which protecting the environment on which our survival depends; news of major technological breakthroughs continued to emerge, winning 26 provincial or ministerial science & technology awards and pioneering as one of the top central SOEs in participation of national key R&D projects during the "Thirteenth Five-Year" period; new progress has also been made in targeted poverty alleviation and public welfare undertakings, with approximately RMB135 million spent on targeted poverty alleviation, which was used for liberating disadvantaged areas from poverty as soon as possible and continuously satisfying the people's wish for a better life... With its outstanding performance in environmental protection, social responsibility, corporate governance and other aspects, China Shenhua was selected as one of the "Top 50 Companies" with respect of ESG (environment, social and governance) in the A-share market of the PRC and obtained many other honours for the year 2017.

Looking ahead in 2018, a year full of opportunities, we will walk, hand in hand, into a new era. The 19th National Congress of the Communist Party of China (CPC) was successfully convened. The real economy will usher in new development opportunities while supply-side structural reforms in the energy sector will continue to deepen. The controlling shareholder of China Shenhua merged with China Guodian Corporation and is renamed as CHNENERGY. With the new era, new opportunities and new challenges, China Shenhua will develop with the guidance of President Xi Jinping's thought on socialism with Chinese characteristics in the new era, with deep sense of mission and responsibility as a central SOE, further strengthen our integrated operations, and accelerate clean energy transformation, innovate for the integration of social responsibility and business operation and continue to enhance corporate value, in an effort to build a world-class integrated energy company with global competitiveness.

Mission pushes people forward, and responsibility stimulates a sense of responsibility. Guided by the spirits of the 19th CPC National Congress, China Shenhua will embrace better future. Let us share the value created by China Shenhua for the country, the people, the society and the shareholders, and witness new contributions to be made by China Shenhua for a moderately prosperous society in all respects.

Chairman: 凌 久

23 March 2018





Ling Wen  
Chairman



# To Fulfill Responsibility and Remain Committed to the Original Aspiration

China Shenhua attached great importance to social responsibility management, integrating the concept and action of social responsibility into corporate development strategies, formulating comprehensive and sustainable development plan while proactively fulfilling corporate social responsibility to promote harmonious development of company and society.

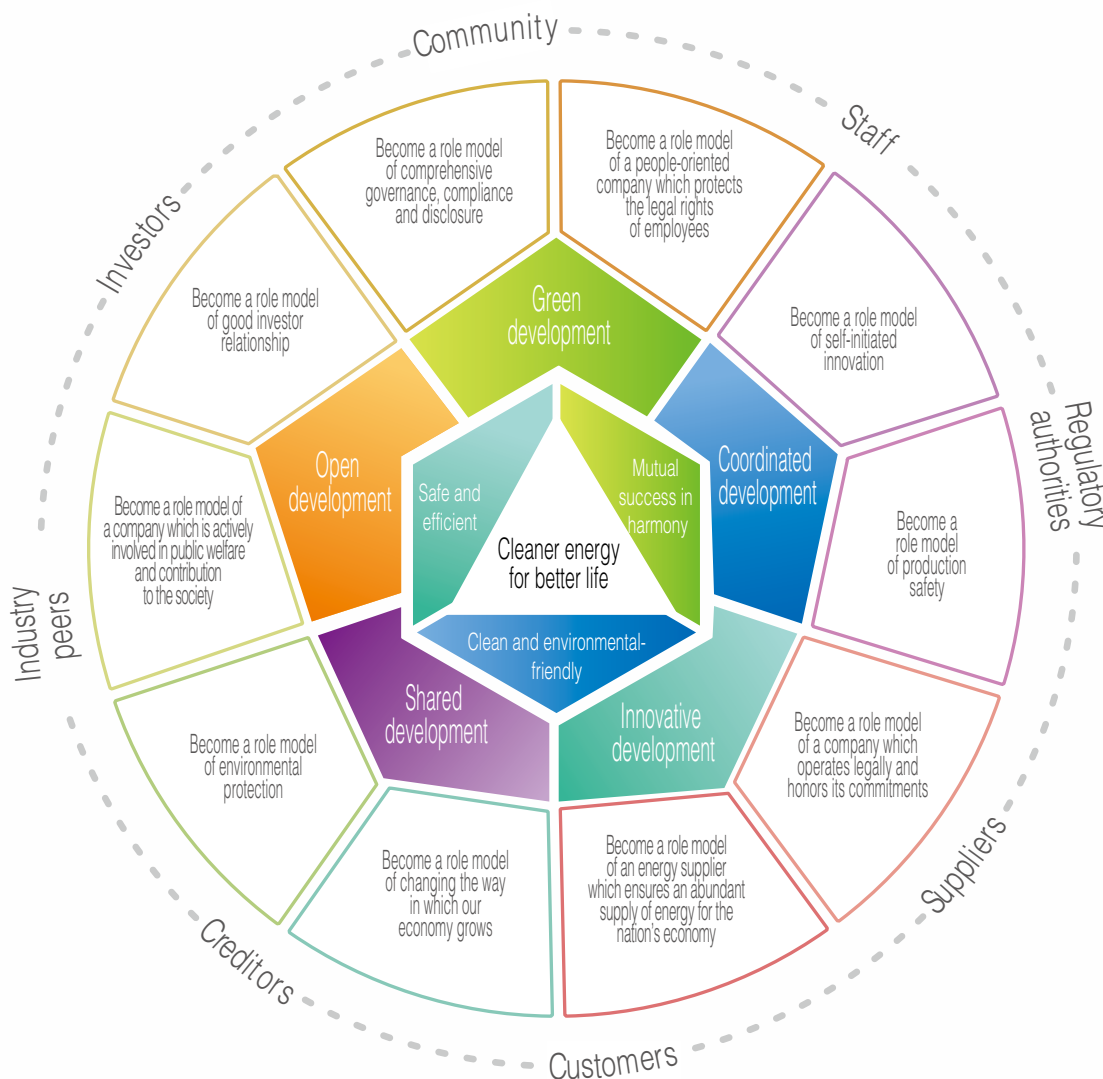






## CSR Culture

In the new era of comprehensive social responsibility management, social responsibility management has become the new model for corporate management. As a promoter, implementer and leader of clean energy development, and service provider of clean energy technology solutions, the Company, guided by five major development concepts, continuously optimized its social responsibility model based on the core theme of “supplying clean energy” to form a CSR promotion model with the characteristics of China Shenhua and a cultural atmosphere to fulfill social responsibility.

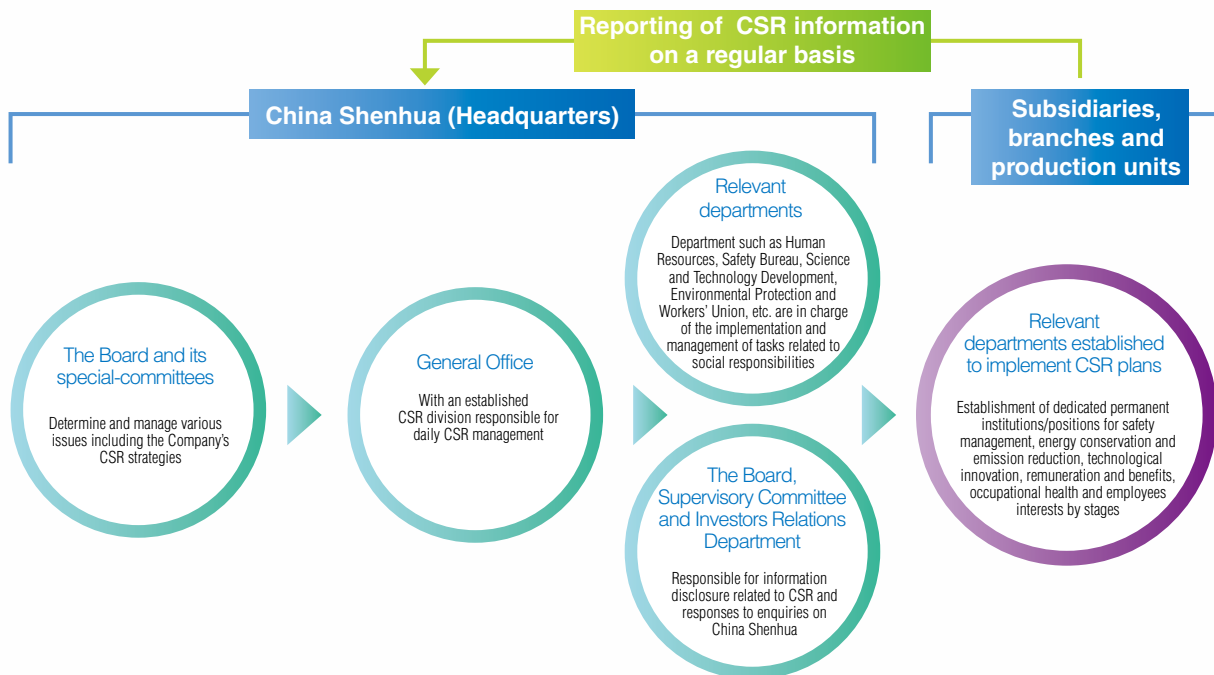


CSR model of China Shenhua

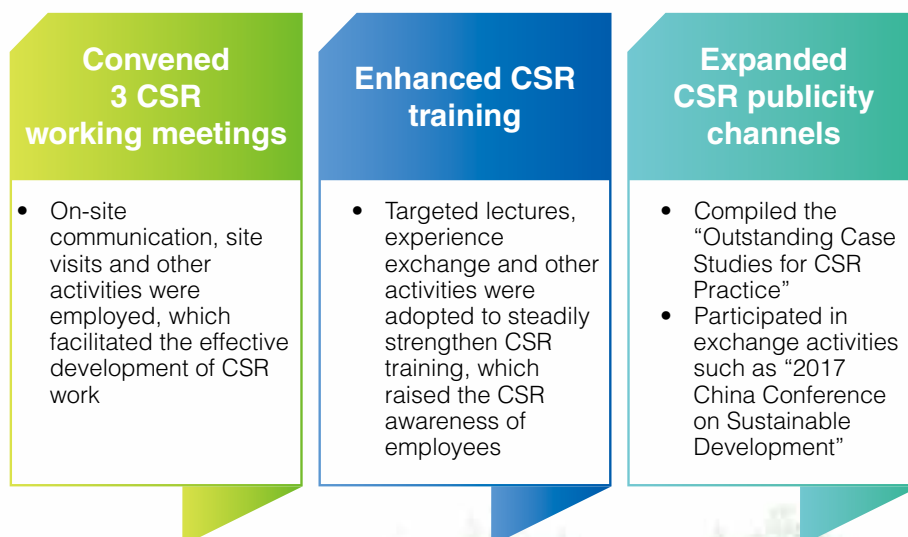


## CSR Management

The Company has established a relatively complete social responsibility management system, covering the headquarters, subsidiaries and branches, plants (mines and sections) and various overseas projects. The board of directors and each of the special committees under it are the leadership and decision-making bodies for social responsibility work. The specific work is under the charge of a vice president; a social responsibility office is set up at the general office of the headquarters, equipped with four full-time staff responsible for carrying out relevant work; all subsidiaries and branches have their social responsibility management department and staff, forming a top-down organizational system.



CSR Organizational System



Significant CSR Activities Initiated in 2017



An exchange meeting on social responsibility supervision being organized and held at Shenhua Baorixile Energy Co., Ltd.



Wang Bin, the head of the social responsibility office of the general office, gives a lecture on social responsibility management for Railway Transportation Co., Ltd.

## Full Integration of Social Responsibility

In accordance with the “Social Responsibility Special Planning for the Thirteenth Five-Year Period, the Company proactively carried out the integration of social responsibility by integrating “the enhancement of capability to fulfill social responsibility” in the whole process of production and operation as well as reform and development.

## CSR Communication

The Company took the initiative in carrying out and proactively participating in various activities on social responsibility communication, exchanging the latest social responsibility information with the government, industry associations, scientific research institutions, etc., sharing and drawing lessons from social responsibility experience to improve the level of social responsibility management and practice.





The delegation led by Sun Yongfu, the former executive deputy minister of the Ministry of Railways and an academican of the CAE, visited Sanhe Power Plant to understand China Shenhua's implementation of social responsibility



The journey to China Shenhua activity held – instructors of general education courses from Hong Kong visited Shenhua








Stakeholders	Expectations and needs	Communication and feedback
Shareholders	Stable operation, earnings and returns, unimpeded information flow	Improving profitability, strengthening market capitalization management, information disclosure in a timely manner
Customers	Performance of contracts in good faith, quality assurance, premium services	Contract execution, customized developed products, satisfaction surveys
Staff	Wages and welfare, career development, health and safety, humanitarian care	Protection of rights and interests, education and training, health protection, caring for staff
Suppliers	Business ethics, transparent procurement, mutual benefits and win-win cooperation	Stringent execution of contracts, improving the procurement policy, symposium
Community	Community development, public welfare activities, jobs creation	Joint development of community, activity and promotion, training and communication
Regulatory authorities	Full compliance with laws and regulations, energy security, tax payment in accordance with laws, environmental protection	Compliance management, structural adjustment, tax payment according to law, clean production
Creditors	High solvency, due repayment of debts and interest, mutual trust and cooperation	Due repayments, better communication and liaison
Industrial peers and industry organizations	Fair competition, facilitating industry progress, promoting the development of industrial chain	Refraining from vicious competition, exchange of experience, technological innovation



## Social Contribution per Share

In 2017, the social responsibility contribution per share<sup>Note</sup> of China Shenhua stood at RMB6.294 (Accounting Standard for Business Enterprises) and RMB6.433 (International Financial Reporting Standards) respectively.

## CSR Honors

-  China Shenhua was awarded the title of “2017 Best Listed Company” on the “2017 Best A-share Listed Company, Best Investment Bank and Industry Champion Ranking” hosted by Value Line magazine and China Economy, and supported by China Business News and Xinhua Net;
-  China Shenhua was selected as one of the 10 companies with the best corporate governance in the report of corporate governance of listed companies issued by the Hong Kong Institute of Directors;
-  China Shenhua received the “Golden Horse Award – Most Socially Responsible Listed Company Award” at the first New Era Capital Forum hosted by Securities Daily;
-  At the annual dinner of the fifth China SIF, China Shenhua was selected as one of the “Top 50 Companies” with respect of ESG (environment, social and governance) in the A-share market of the PRC for the year 2017, becoming one of the 50 companies for the year with the best ESG performance in the A-share market of the PRC;
-  China Shenhua ranked the first in the “Best Investor Relations” rankings for the category of basic raw materials on the “2017 All-Asia (excluding Japan) Executive Team Ranking List” hosted by Institutional Investor, an authoritative institutional investor magazine in the U.S.;
-  China Shenhua received the “2016 China Financial Market Awards for Listed Companies – Most Valuable Brand Award”;
-  The “Shenhua Care Activities” was recognized as the “Four ‘100’ – Best Volunteer Service Project” of the “Learn from Lei Feng Volunteer Service Award” by 11 departments including the Publicity Department of the Central Committee and the Central Office of the Central Commission for Guiding Cultural and Ethical Progress.

---

**Note** Social contribution value per share is calculated on the basis of the Company’s basic earnings per share created for shareholders, adding the value of tax paid to the country, salary paid to its employee, interests on borrowings paid to creditors such as banks and value created for other stakeholders such as external donations, and deducting other social costs due to environmental pollution and other factors. Other social costs due to environmental pollution and other factors include the taxes and fees payable and funds provided in accordance with the relevant requirements of the State, including pollutant discharge fee, coal sustainable development fund, compensation for water and soil losses, compensation for land acquisition, security deposits for mine environment control and restoration and provision of reclamation expenses.





# Economic Mission with Quality at the Heart

Adhering to the clean energy strategy as the guidance, China Shenhua proactively transformed development concept and development mode, and optimized the industrial layout, focused on value creation, and safeguarded the investors' interest on the basis of continuous improvement in the efficiency of integrated operation and strengthening of the synergy among business segments, striving to achieve stable, quality and efficient operation of the enterprise.

## SDGs

## Actions



- Quality operation to safeguard investors' interests
- Achieving the annual revenue of RMB248.746 billion, representing a year-on-year increase of 35.8%



- Holding suppliers information-sharing meetings
- Site visit to suppliers' factories to monitor production and check before acceptance, etc.



## Corporate Governance

The Company has established a modern corporate governance structure consisting of shareholders' general meeting, Board of Directors, Supervisory Committee and management team, forming a governance mechanism of "well-defined boundaries of responsibilities and obligations, established system, clearly-allocated duties and functions with effective checks and balances" to effectively improve the operation level.

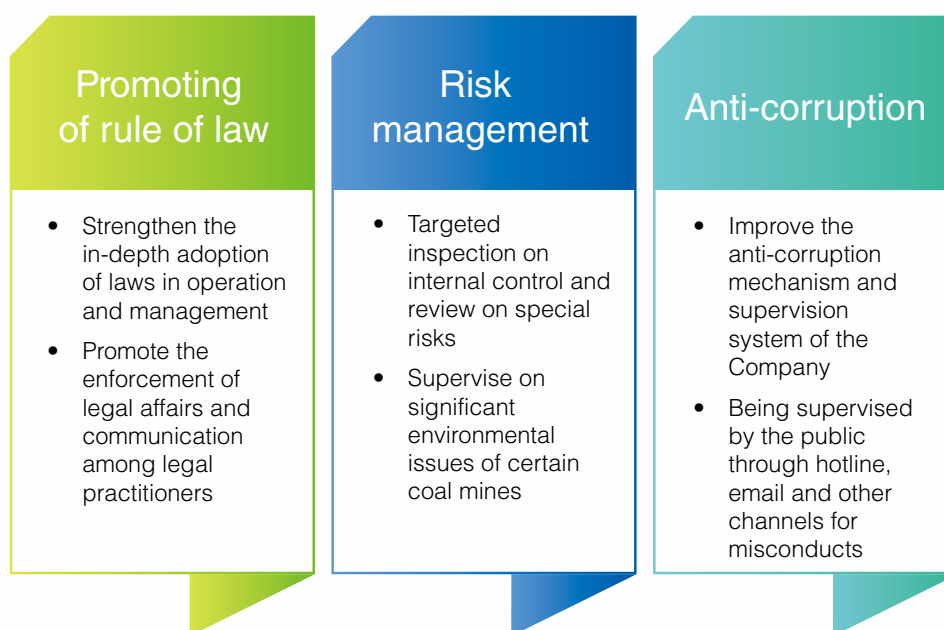


By the end of 2017, the fourth session of the Board of the Company comprised seven directors, including three executive directors, one non-executive director and three independent non-executive directors. In 2017, the Company convened 14 Board meetings, including three on-site meetings, six meetings held by teleconferencing, and five meetings held in combination of on-site and teleconferencing, at which 43 resolutions in relation to annual report, remuneration of directors and supervisors, dividends distribution and other issues were passed. One shareholders annual general meeting was held.



## Operation Compliance

The Company continuously improved its policies and management system in strict observance of national laws and regulations and the Listing Rules, whereby it strengthened the management and control of the operation and improved assurance practices in operation and management. In 2017, the internal control system of the Company functioned effectively, and no material issues or significant defects regarding the internal control designing was identified. Both the risk management coverage and internal control assessment coverage reached 100%.



### Combating Corruption

	2016	2017
Integrity education (sessions)	3,500	5,194
Employees' receiving in integrity education activities (persons)	198,352	187,675
Corruption leads received	796	798
Corruption leads verified	417	410
Persons who have received disciplinary or administrative penalties (persons)	117	129
Losses recovered from anti-bribery, fraud and embezzlement (RMB10,000)	1,019.84	1,287.31

## Efficient Operation

The Company continuously innovated management models with quality and efficiency at the heart, kept enhancing the integrated operation and digitization, optimized industrial structure and push quality and efficiency improvement so as to maximize the overall value of the Company.

### IT-based Transformation

In 2017, taking all aspects of the industrial value chain as the starting point, the Company strived to construct “digital Shenhua” in five areas, namely smart production, smart dispatch, energy interconnection, E-commerce and shared service, and created new core competencies of Shenhua in the era of “Internet +”.



Actions taken by China Shenhua to improve IT-based transformation

## Overseas Business

The Company continued to push forward the projects in various countries under the “Belt and Road” initiative and proactively promoted Shenhua’s clean energy strategy, which contributed to the local economic development while expanding company business opportunities.

The U.S. Shale Gas Project	Indonesia Coal-fired Power Project	The Australia Watermark Project
<ul style="list-style-type: none"> <li>Realized operating revenue of US\$19.69 million, with total profit of US\$4.0144 million</li> </ul>	<ul style="list-style-type: none"> <li>Ranking No. 1 in the Indonesian comprehensive appraisal, EMM Indonesia was awarded the title of the “Most Innovative Power Enterprise in 2017” and successfully recovered its capital; Jawa-7# Coal Power Project commenced construction under the witness of the president of Indonesia</li> </ul>	<ul style="list-style-type: none"> <li>Entered into the legal binding “Contractual Agreement for Exploration Rights” and the “Contractual Agreement for Mining Rights” with New South Wales State Government</li> </ul>

### Progress of certain overseas projects



In response to the “Belt and Road Initiative”, China Shenhua participated in the “82nd Thessaloniki International Fair” in Greece

## Win-win Cooperation

The Company created value for investors, customers and suppliers by harvesting satisfactory operating results, providing quality products and services, insisting on open and transparent procurement, and other initiatives.

### Investors

- **Information disclosure:** In 2017, the Company released a total of 190 information disclosure documents and was awarded A-Class for Information Disclosure by the Shanghai Stock Exchange
- **Investors communication:** In 2017, the Company communicated with more than 700 analysts and fund managers
- **Investor return:** In 2017, the Board proposed the payment of a final dividend for the year of RMB 0.91 per share (tax inclusive), equivalent to 40.2% of basic earnings per share under the CASBE, amounting to RMB18.1 billion in aggregate (tax inclusive)

### Customers

- **Quality products:** In 2017, the sales revenue from top five customers totalled RMB36,407 million, accounting for 14.6% of the revenue of the Company
- **Customer service:** the Company protected privacy and interests of customers and enhanced the level of customer service performance, and the customer satisfaction rate reached more than 89%

### Supply chain

- The Company continued to strictly control each aspect including special access and logistics supply review to reduce environmental and social risks in the supply chain, and built a responsible supply chain.
- By the end of 2017, a total of 52,278 suppliers registered in our information system, among which, 11,336 were newly registered, and 3,871 material suppliers were evaluated by the Company; the total procurement from top five suppliers of the Company during the year amounted to RMB20,012 million, accounting for 15.7% of the total procurement for the year



Modern mining areas



### Material Suppliers by Geographical Region<sup>Note</sup>

Geographical Region	Number
Northern China	18,905
Northeastern China	2,514
Eastern China	13,854
Central Southern China	5,235
Southwestern China	1,943
Northwestern China	9,401
Others	426



In response to the “Aokai Cable Incident” and various issues occurred in the execution of contracts, the Company organized a workshop with short-listed suppliers for conveyor belts and cables in a timely manner

**Note** Definitions of geographical regions are as below: Northern China (Beijing, Tianjin, Hebei, Shanxi, Inner Mongolia); Northeastern China (Heilongjiang, Jilin, Liaoning); Eastern China (Shanghai, Shandong, Jiangsu, Anhui, Jiangxi, Zhejiang, Fujian); Central Southern China (Henan, Hubei, Hunan, Guangdong, Guangxi, Hainan); Southwestern China (Chongqing, Sichuan, Guizhou, Yunnan, Tibet); Northwestern China (Shaanxi, Gansu, Ningxia, Xinjiang, Qinghai); Others (HK, Macau, Taiwan & overseas).



# Safety Mission and Achieve Rock-solid Operation

Firmly adhering to the safety concept of “life matters the most” and “life first”, China Shenhua perfected the safety management system, innovated safety technology applications, provided training on various safety skills for staff, and promoted corporate safety culture to ensure all-round stable and safe operation and establish the safety and quality corporate image of Shenhua.

## SDGs

## Actions



- Putting more efforts in scientific research in critical disasters relief and key safety technologies
- In 2017, breakthroughs have been obtained in technological innovation projects such as Research on Key Technologies of Fire Prevention and Extinguishing of Coal Seam Group Vulnerable to Spontaneous Combustion (《易自燃煤層群防滅火關鍵技術研究》), Research on Coal Mine Safety Hazards Management System (《煤礦事故隱患管理體系研究》).



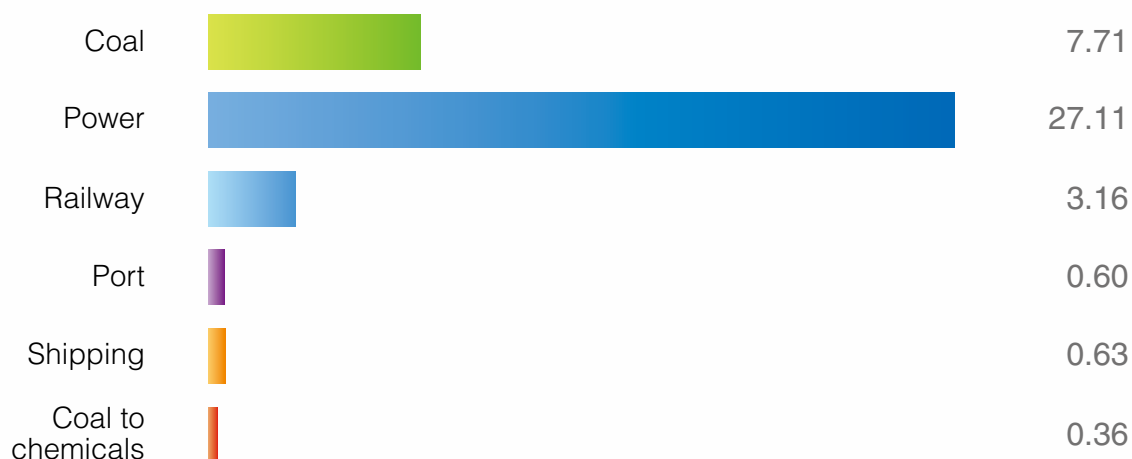
- Carrying out special random inspections for standardization of safe production, expert consultation on prevention and treatment of water hazards, etc.
- In 2017, the Company carried out 16 comprehensive and special inspections and eliminated potential safety problems of various kinds.



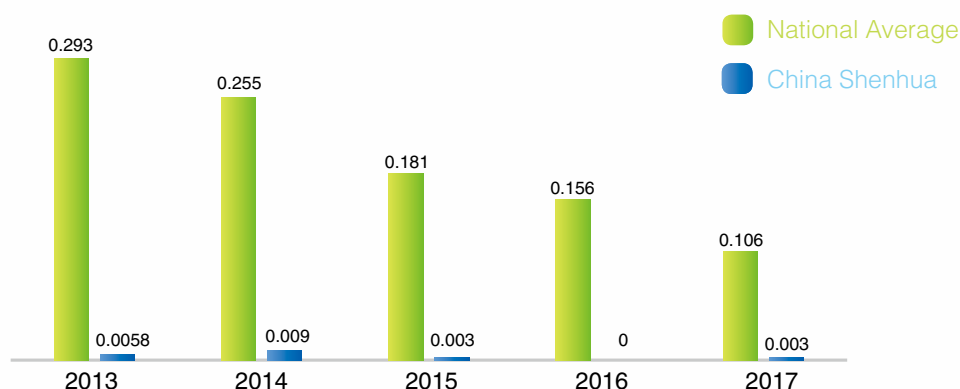
## Safety Management System

The Company has established a safe production committee for a more standard, systematic and scientific safety management in line with the principle of “supervision by the headquarter, responsibility assumed by the enterprise, making concerted efforts by full participation”.

The Company revised the “Evaluation Standards for Safety Risk Control and Management System of Underground Coal Mines and Open-pit Coal Mines” (《井工煤礦和露天煤礦安全風險預控管理體系考評標準》) to achieve the organic integration of the risk control and management system with national standard of safe production; increased investment in safe production, and effectively minimized accidents. In 2017, there were no relatively major or more serious safety accidents.



Investment of Each Segment in Safe Production in 2017 (RMB100 million)



Bar Chart of Comparison on Fatality Rate per Million Tonne of Coal Mine Production from 2013 to 2017

## Case Study: Bear in Mind the Risks with the Safety Card



Railway Transportation Company Cangzhou Branch, based on the position guidance book and the hazard identification database, prepared over 2,000 risk warning cards for each position composed of quality control, safety risk control, major risk control, safety protection requirements, inspection indicators and accident cases, which enables the staff to have a clear understanding of the various potential risks in various positions of various sections and get familiarized with the specific approaches and measures for risk control and management so as to ensure the effective control over the sources of risks.

## Innovation in Safety Technology

Adhering to the strategy of improving work safety through science and technology, the Company put more efforts in the R&D of safety technology to enhance the management and control level of safe production system and effectively guarantee the safety of employees.

### Establishment of Safety Information System

The Company innovated information management and control technology for timely, effective and secure delivery of safety warning information and work information, and enhancement of the practicality of the safety information system.



Established WeChat platform “Shenhua Safety Supervision”



Completed the re-design and revision of material hidden risks in safety management information system and the functional module for accidents and incidents management



Research on, adjust and optimize underlying systematic links among safety information roadmap, goals by stages and digitalized mines

### Improvement measures for establishment of safety information system



Shangwan Coal Mine's centralized supervision and monitoring platform in Shendong Coal Group

### Safety Technology Breakthroughs

The Company continued to put more efforts in scientific research in major hazard treatment and key safety technologies to conquer technical bottlenecks that affect production safety.





## Safety Emergency Support

The Company continued to improve emergencies management plans and procedures, optimized emergency handling process, and carried out various emergency trainings and drills to strengthen the capability of dealing with accidents.

### Emergency Management

The Company comprehensively enhanced emergency management capabilities by equipping with rescue teams, increasing capital investment, strengthen rescue training, and equipping with adequate professional equipment, and it has established a relatively complete mine rescue system for all of its coal mines. In 2017, 2,698 times of emergency drills were conducted, and the emergency rescue capability competition was successfully held, in which the rescue teams in all sectors of the Company demonstrated their rapid response and skillful rescue capabilities; the Company participated in the 11th National Mine Emergency Rescue Capability Competition convened in Kailuan city, Hebei province, in which Shendong Rescue and Fire Extinguishing Team won the third prize in the group competition category.



Safety emergency drills

### Treatment of Potential Risks

The Company attached great importance to the inspection and treatment of production safety risks by organizing and carrying out special random “health” inspections of coal mines, special random inspections for standardization of safe production, expert consultation on prevention and treatment of water hazard, annual comprehensive inspection and assessment, etc.

The Company improved the rules and regulations and standard procedures for works carried out under the policy of “One Ventilation and Three Preventions” and the prevention and treatment of water hazard to strengthen fundamental management, established a sound technical system for the assessment, early warning, prevention and treatment and evaluation of major hazards to improve the management level of “One Ventilation and Three Preventions” and the prevention and treatment of water hazard and the capabilities of accident prevention and emergency treatment, and eliminate the occurrence of major accidents in relation to “One Ventilation and Three Preventions” and the prevention and treatment of water hazard.



1

Improve ventilation system and eliminate unjustified ventilation



2

Prevent coal and gas outburst and meet the standard on the utilization of gas drainage with zero gas outburst



3

Eliminate the impact of coalfield fires and kiln fires on safe exploration of underground mines and measure coalfield fire and kiln fire areas, intensify governance on fire areas and prevent fire accidents causing hazards and casualties



4

Reinforce comprehensive treatment of dusts in underground mines and eliminate dusts from accumulating, and reduce overstepping of limits and bring down the rates of Pneumoconiosis

Improvement measures of “One Ventilation and Three Preventions”

## Prevent and treat water hazards



- Measure the hidden water conductivity structure of underground Ordovician limestone water and water balance in small kilns
- Water draining in mining surface prior to coal extraction
- Prevent flooding accidents and get rid of hazards and casualties caused by flooding

Measures for prevention and treatment of water hazard

## Safety-Oriented Culture

The Company carried out various safety promotion activities to develop staff's safe behaviors, strengthen their safety consciousness and safety skills, and provided staff with diversified safety trainings to create a strong atmosphere of safety.



Security check before entering the pit

### Nurturing a Culture of Safety

The Company hosted a series of safety cultural activities such as the "Safe Production Month" and the "Ankang Cup" Competition to create an atmosphere of safety. In 2017, the Company conducted survey on the safety culture development of five subsidiaries and branches (including Shendong Coal Group, Zhunneng Group and Shuohuang Railway Development Company) and certain mines (plants and sections) affiliated to them, and prepared the "Guidelines on Corporate Safety Culture development of China Shenhua (《中國神華企業安全文化建設導則》)".

### Production Safety Education

The Company attached importance to the publicity of safety knowledge to staff and to enhance their ability in fulfilling safety responsibilities through safety trainings, simulation drills, etc.

#### Case Study: Bearing Production Safety in Mind – Production Safety Law Promotion Week in Longyan Power Plant



In 2017, the Longyan Power Plant of Fujian Energy Company organized the Production Safety Law Promotion Week. Through intensive learning of the Production Safety Law, listening to thematic lectures on the Production Safety Law given by experts, and by ways of WeChat message, video lecture, on-site lecture and knowledge contest, the staff learned the Production Safety Law and relevant laws and regulations in a comprehensive and systematic manner. The diversified learning and promotional activities strengthened the staff's consciousness in complying with the Production Safety Law, and ensured orderly and efficient safe production.







# Innovation Mission to Embrace Changes

China Shenhua optimized the innovation mode to enhance independent innovation capability, protected intellectual property and increased R&D input to promote the construction of innovation platform and innovation talents team, and drove the organic linkage of innovation chain, industrial chain and market demand to cultivate the core competitiveness of the Company.

SDGs

Actions

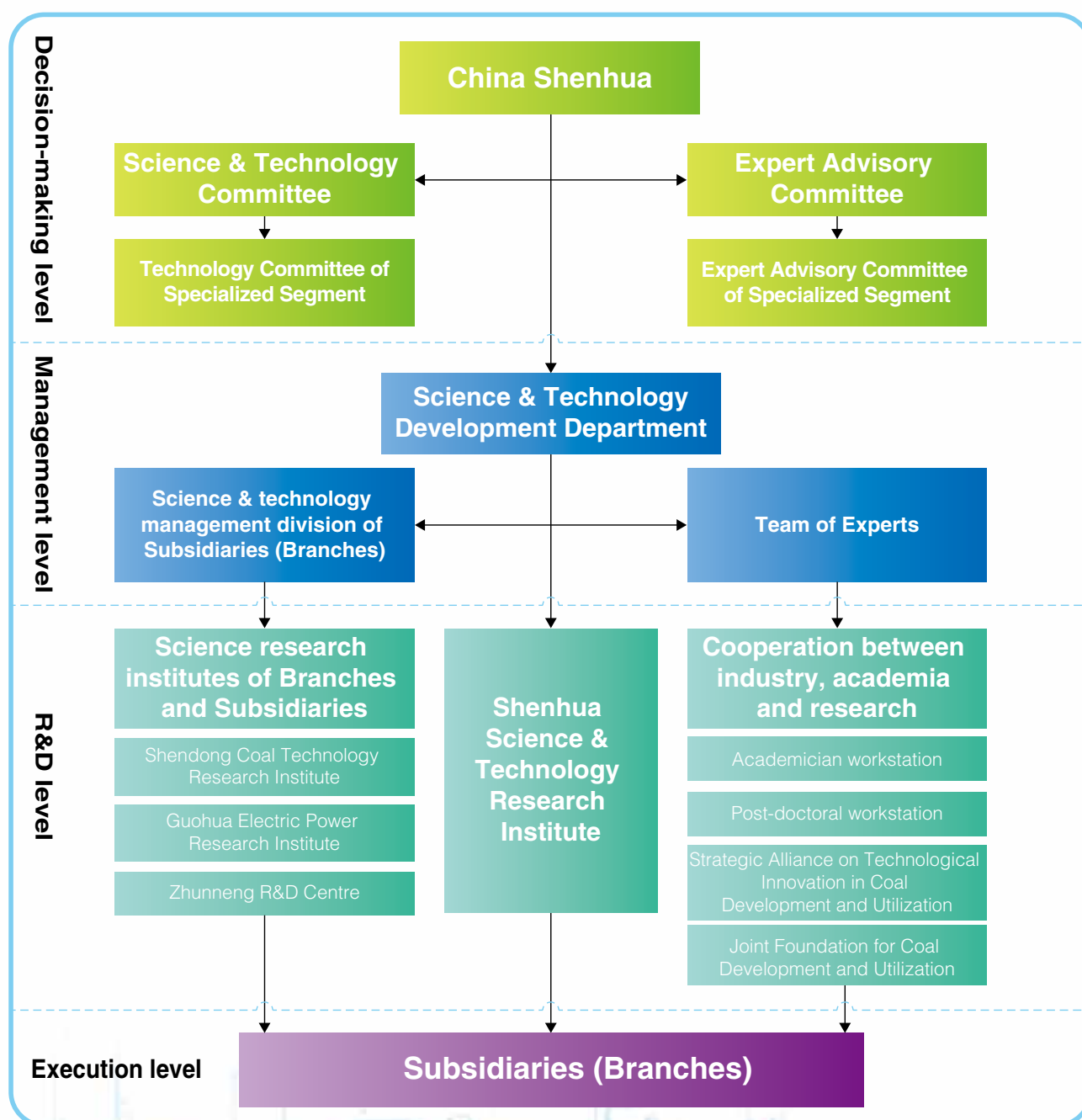


- among the top central enterprises in terms of the national key R&D projects undertaken for the “Thirteenth Five-Year Plan” period
- 90 company-level technological innovation projects were established upon approval
- 543 patents obtained, including 126 invention patents



## Innovation of Management System

The Company established a comprehensive technological innovation system with the Science and Technology Committee and Expert Advisory Committee at the decision-making level, the Department of Scientific and Technological Development at the management level, three-tiered scientific research institutes including national-level institute, directly-managed institutes and institutes managed by affiliated units as well as platforms for cooperation among industry, academia and research institutes at the R&D level, and grassroots units at the execution level.



Schematic diagram of China Shenhua's technological innovation system



## Nurturing Scientific Research Talents

The Company established a multi-layer base for talent in technology field fostering to strengthen the construction of talents team, increased R&D input and enhanced the scientific research capability of enterprises. In 2017, Shenhua's R&D input registered RMB606 million. The Company strove to make important technological breakthroughs in green coal mining, ultra-low emission of coal-fired power plants, coal chemical, and heavy-haul railway transportation.



CAE Academicians

2



Technical talents with senior or higher professional titles

4,164



Experts of the "Hundred, Thousand and Ten Thousand Talents Project"

4

## Breakthroughs in Scientific Research

China Shenhua proactively undertook national and industrial innovation projects, and took initiative to participate in the establishment of industry standards. The Company accelerated the commercialization of innovation results to tackle technical difficulties arising from the development of the industry and enterprises.

In 2017, China Shenhua made remarkable achievements in scientific and technological innovation:

- Received provincial, ministerial or higher awards for 26 technological achievements
- Six national standards including the Water Quality Requirements and Analysis and Testing Methods for Sea Water Cooling Section I: Measurement of Calcium and Magnesium Ions (《海水冷却水质要求及分析检测方法第1部分：钙、镁离子的测定》) (GB/T 33584.1-2017), of which the Company participated in the formulation, were officially issued and implemented



In January 2017, the eight-meter mining height integrated equipment was successfully transported to the underground mine through the transportation channel and put into production, marking a “super project” in mine construction in the modern coal industry

**Case Study: The “Research on and Demonstration of Key Technology of the Shield Construction of Long-Distance Inclined Shafts of Coal Mine” project was successfully accepted upon inspection by the State**



In view of the difficulties faced by the shield construction project of long-distance inclined shafts of coal mine such as extra mining depth, continuous slope, high-pressure and abundance of water, complicated stratum conditions, etc., the Company conducted research and conquered difficulties on the major and key technologies such as the selection and matching of shield construction, excavation, underground dismantling, digital remote monitoring, special treatment for undesirable geological conditions and the impact of coal mining on tube structure, and established the first inclined coal mine demonstration project adopting shield construction in China based on the Shenhua Xinjie Mining Project and the Shendong Bulianta New Auxiliary Inclined Coal Mine Project, creating a new model for the construction of inclined coal mine in China, which plays a demonstrative and leading role in the construction of large-scale modern mines.

The Company laid emphasis on protecting intellectual property, and improved the capabilities to create, protect, manage and apply intellectual property in an all-around manner. In 2017, the Company applied for 720 patents, including 235 invention patents, and obtained 543 patents, including 126 invention patents.

## Science and Technology Exchange and Cooperation

The Company continued to expand the scope of international academic exchange on clean energy technologies to provide technical support for the formulation of sustainable energy development policy. In December 2017, Clean Energy, of which Chairman Ling Wen, and academician Li Nianzhi serve as the chief editors, was officially issued. Oxford University Press and Science Press were identified as the international and domestic publishers respectively.



Co-hosted with CAE the High-end Forum of International Engineering Science and Technology Development Strategy on “Clean Energy Technology and Engineering Management”



# Mission of Environmental Protection for Green and Sharing Development

China Shenhua adhered to the concept of green development, actively promoted clean development and utilization of resources and energy, optimized management of energy conservation and environmental protection, practised energy conservation and consumption reduction, water conservation and efficiency enhancement, sewage treatment and emission reduction, ecological protection and carbon management in an effort to improve the utilization rate of resources and energy and reduce the impact of production and operation on the environment so as to become a resource-saving and environment-friendly clean energy supplier.

## SDGs

## Actions



- Developing and implementing clean energy technologies, reducing energy consumption and increasing energy exploitation and utilization efficiency
- In 2017, wind power and hydropower plants produced 722 million kWh in total



- Tackle air pollution by reducing exhaust gas and greenhouse gas emission
- The "Demonstration Project for Work Flow of 100,000-ton Carbon Collection and Storage" (十萬噸級二氧化碳捕集與封存全流程示範項目) was initiated at Jinjie Power Plant



- Managing water resources to reduce utilization and sewage emission and increasing recycled water use
- 5.2 million tonnes of desalinated sea water were used in 2017



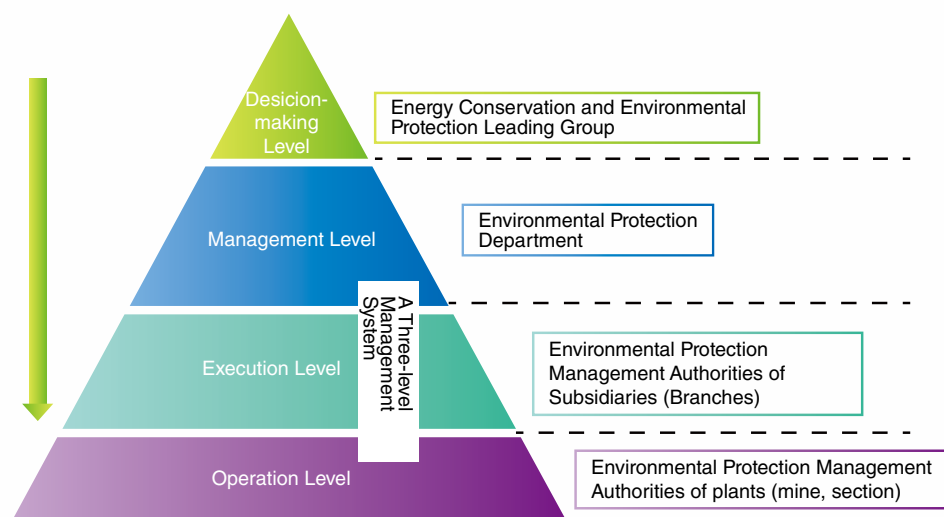
- Protecting the ecological environment along the exploitation site and railways to avoid endangering biodiversity
- RMB332 million was allocated for ecological restoration and environmental greening in 2017





## Optimization of Energy Conservation and Environmental Protection Management

The Board and its Safety, Health and Environmental Protection Committee is the highest decision-making authority in energy conservation and environmental protection work. The Company established a three-level energy conservation and environmental protection management evaluation system consisting of the headquarters, subsidiaries (branches) and plants (mines, sections). In 2017, the Company continued to optimize energy conservation and environmental protection management through system construction, institution improvement and mechanism optimization. There was no significant environment safety incident throughout the year.



Structure of Environmental Management System

### Case Study: Inspection on Environmental Safety Urged Comprehensive Implementation of Document No. 1 of the Company



In 2017, attaching equal significance to energy conservation and environmental protection and production safety, the Company issued and implemented Decision on Doing the Best for Safety Production and Environmental Protection for 2017 (referred to as the "Document No. 1"). The Company carried out five inspections on environmental safety including check on legitimacy and compliance of coal power projects, Spring Check on environmental protection and safety, check on "four don'ts and two directs", supervision on material environmental problems of coal mines, and assessment and review of annual Document No. 1 implementation, and organized closed-loop rectification to ensure completion of nearly 30 key tasks of energy conservation and environmental protection as required by the Document No. 1. The energy and water consumed to generate per unit of output and emission of major pollutants recorded continuous decrease. All assessments were successfully completed.

## Developing Energy Conservation and Environmental Protection System

In 2017, the Company continuously pushed forward development of standardized management system, such as ISO14001 environmental management system, energy management system, risk prevention and control system and clean production review, and stringently executed “three simultaneous” management of energy conservation and environmental protection. The headquarters of the Company amended the Investigation and Treatment Measures of Environment Safety Incidents (《環境安全事件調查處理辦法》), while the subsidiaries and branches made approximately 100 additions or revisions in energy conservation and environmental protection regulations. Meanwhile, the environmental protection monitor system implemented 24-hour online monitor to 47 key companies. Energy consumption monitor system was preliminarily completed and commenced with successful integration with the comprehensive information platform of energy conservation and environmental protection.

### Development of “Three Large” Systems of Energy Conservation and Environmental Protection in 2017

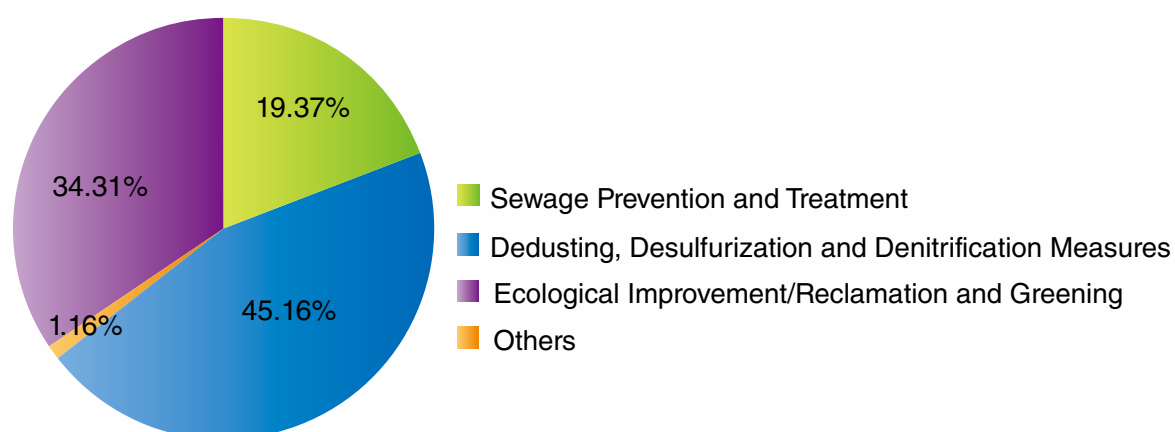
Statistics	Continuous optimization of statistical information platform and timely review on the rationality and accuracy of the submitted data; optimization of the corporate norms and standards of energy conservation and environmental protection indicators system.
Supervision	Online supervision and alert platform for environmental protection covering key subsidiaries and branches; implementation of Online Supervision Standards of Pollutants in Coal-fired Power Plants; commencement of ecological remote sensing supervision and completion of reports on ecological treatment supervision in mine areas and environmental risk investigation and supervision in solid waste yards.
Assessment	Strengthening of performance assessment and administrative accountability, taking into consideration the performance in key projects, removal of hidden risks and environmental incidents; amendment and implementation of Investigation and Treatment Measures of Environmental Safety Incidents.

## Increasing Investment in Energy Conservation and Environmental Protection

In 2017, the investment in energy conservation and environmental protection of the Company amounted to RMB1.552 billion, among which RMB0.968 billion went to environmental protection and RMB0.584 billion went to energy conservation. Special projects in energy conservation and environmental protection mainly included energy conservation projects such as flow-path renovation, heat supply renovation, boiler renovation, frequency-changing renovation, geothermal heat pump and air source heat pump renovation, and environmental protection such as dedusting, desulfurization and denitrification, integrated utilization of water resources and sewage treatment, ecological improvement, and management of coal gangue dump sites.

Investment in Energy Conservation and Environmental Protection of  
Each Business Segment of China Shenhua in 2017 (RMB million)

Business Segment	Investment in Energy Conservation and Environmental Protection	Investment in Environmental Protection	Investment in Energy Conservation
Coal	620.40	479.19	141.21
Power	621.50	221.50	400.00
Coal to chemicals	131.52	131.52	0
Transportation	179.03	136.15	42.88
Total	1,552.45	968.36	584.09



Structure of Investment in Environmental Protection of China Shenhua in 2017



## Enhancement of Energy Conservation and Consumption Reduction

The Company adequately leveraged on the industrial advantages of integrated operation combining coal, electricity, road, port and shipping to enhance the coupling between different industries and strive to develop circular economy, and continuously unleashed the potential for energy conservation through key energy conservation projects, phasing out outdated mechanical equipment, treatment of coal-fired industrial boilers and other measures to constantly improve the energy utilization rate. In 2017, the comprehensive energy consumption of the Company was 50.5612 million tonnes of standard coal and the comprehensive energy consumption for every RMB10,000 of output was 3.18 tonnes of standard coal.

Energy Consumption per Unit of Each Business Segment from 2015 to 2017

Energy Consumption per Unit of Each Business Segment	2015	2016	2017
Comprehensive energy consumption against raw coal production (kg standard coal/tonne)	2.13	2.56	2.57
Comprehensive energy consumption against railway turnover (kg standard coal/10 thousand tonne kilometers)	24.45	25.12	24.29
Comprehensive energy consumption against port throughput (kg standard coal/10 thousand tonnes)	2,775.24	2,249.22	2,160.06
Comprehensive energy consumption against shipping turnover (kg standard coal/1,000 tonne nautical miles)	4.95	5.33	5.17
Energy consumption against polyolefin produced from coal (kg standard coal/tonne)	4,916.72	5,100.56	5,274.59

### Cleaning of Coal

The Company insisted on green exploitation of coal, enhanced washing and processing, optimized transportation process, promoted clean production of coal in a systematic way, and endeavored to advance the transformation and upgrading of coal industry. In 2017, its coal business focused on implementation of change in frequency of conveyor, recycling of excess heat in mine, ventilator energy conservation and other renovations. The Company published and implemented the Treatment Plan of Phasing out Outdated Mechanical Equipment (2017–2019); and strived to promote treatment of coal-fired industrial boilers and had completed the renovation for 458 coal-fired industrial boilers in aggregate.

### Measures of Green Exploitation of Coal

	Green exploitation of coal	Increase in recovery of coal	Washing and processing of coal
<b>Measures</b>	Adopting models of green exploitation of coal with low energy consumption and high efficiency	Promoting fine collection of coal and improving resources recycling rate	Selecting suitable coal for washing to achieve maximum utilization
<b>Performance</b>	Comprehensive energy consumption against raw coal production 2.57 kg standard coal/tonne	88.22% of average recovery rate in the mining area	Washing and processing 268.74 million tonnes of raw coal

### Case Study: Green Shendong, changing the image of coal mine



Shendong Coal Group is situated in Mongolia, Shaanxi and Shanxi provinces with abundant resources, and currently has 15 production mines. In over 30 years, not only has Shendong Coal Group constructed the world's largest modernized coal production base, but also developed an extensive oasis of coal mine, paving the way for active and green development. In December 2017, Shendong Coal Group received the "Award for Social Responsibility in Environmental Protection" at the China Social Responsibility Public Welfare Gala.

### High Efficiency of Electricity

The Company amended and implemented the Action Plan for Upgrading and Renovation of Energy Conservation and Environmental Protection for Green Power Generation of Shenhua (2016–2020) (2017 version) (《神華綠色發電節能環保升級改造行動計劃(2016–2020年)(2017版)》), implemented renovation of units flow-path, integrated renovation of energy conservation, heat supply renovation and other energy conservation projects, pushing forward constant upgrading of the power industry. In 2017, the average coal consumption for 1 kWh of power sold was 311 g.

### High-End Coal-to-Chemicals

Coal-to-chemical industry of the Company adopted an information system for energy to be “traced daily, balanced in ten days and settled monthly”, exposing all segments of production and consumption to system improvement, energy audit and operation optimization to rationalize gradient utilization of energy and maximize the recycling of by-products, excess heat and excess pressure. In 2017, the comprehensive energy consumption against polyolefin produced from coal was 5,274.59 kg standard coal/tonne.

### Green Transportation

The transportation branch of the Company includes railway, port and shipping. The Company enhanced transportation efficiency through better transportation organization, renovation of energy conservation technology, selection of quality energy and other methods. In 2017, comprehensive energy consumption against railway turnover was 24.29 kg standard coal per ten thousand tonne kilometers. The shipping company already has twelve 46,000-tonne coastal bulk freight ships and eight 76,000-tonne oceanic bulk freight ships equipped with high voltage shore power systems.

### Promotion of Water Conservation and Better Efficiency

The Company continuously enhanced the protection of the water source, conservation and utilization of water resources, profound reutilization of waste water to maximize utilization ratio of water resources. In 2017, fresh water consumption totaled 182.92 million tonnes, while water consumption for thermal power was 0.65 kg/kWh.

**Protection and conservation of water resources.** The Company strived to promote the application of water protection in coal mining, air cooling facilities in power plants, water conservation retrofits and other technology to save water resources and reduce water consumption. In 2017, the Company continued to enhance management on the key units with water consumption over 5 million tonnes per year, while more than 10 units completed water equilibrium experiment throughout the plants, and units including Hulunbuir power plant passed the assessment on creation of water conservation enterprises.

**Waste water prevention, treatment and reuse.** Adhering to the mission of the Action Plan on Water Pollution Prevention and Control (2015–2020) (《水污染防治行動計劃(2015–2020)》), and in combination with the features of water quality of sewage in the Company's business sectors, the Company comprehensively strengthened the integrated treatment and reuse of waste water to enhance the utilization ratio. In 2017, waste water produced totaled 180.93 million tonnes with comprehensive utilization of 129.2 million tonnes and comprehensive utilization ratio of 71.41%.

#### Comprehensive Utilization of Waste Water Resources

	Production (Million Tonnes)			Utilization (Million Tonnes)		
	2015	2016	2017	2015	2016	2017
Underground Mine Water	105.3	105.66	114.39	71.1	72.53	81.06
Industrial Waste Water	46.97	47.74	50.91	41.15	38.59	43.66
Domestic Sewage	14.85	15.28	15.63	4.45	4.06	4.49

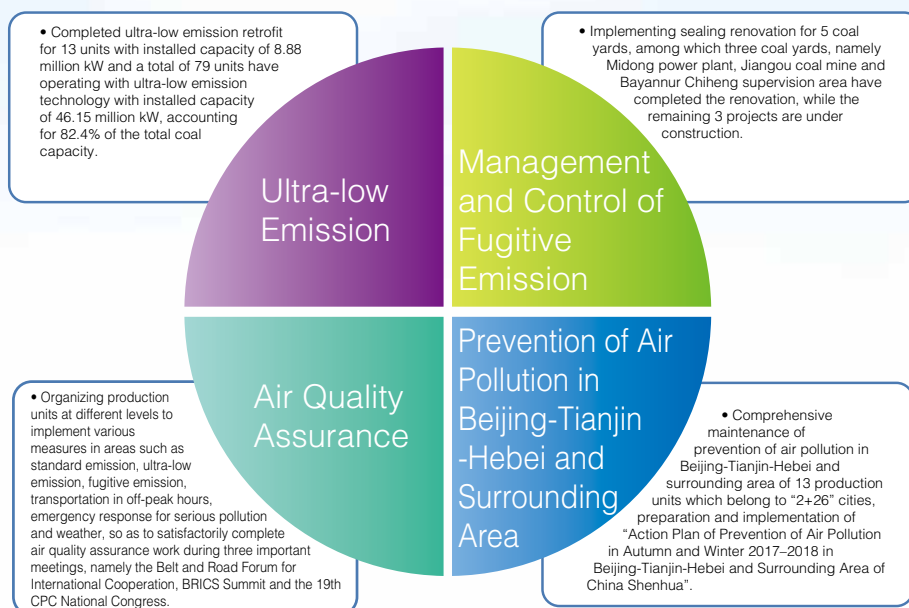
## Strengthening Pollution Prevention

The Company strictly complied with various environmental protection laws and regulations and applied the principle of “preventing pollution at source, controlling pollution in the process and abating pollution at the end” in every aspect of production and operation. Through clean production, pollution prevention, key pollution prevention projects, the Company made efforts to minimize the impact on the environment during production and operation.

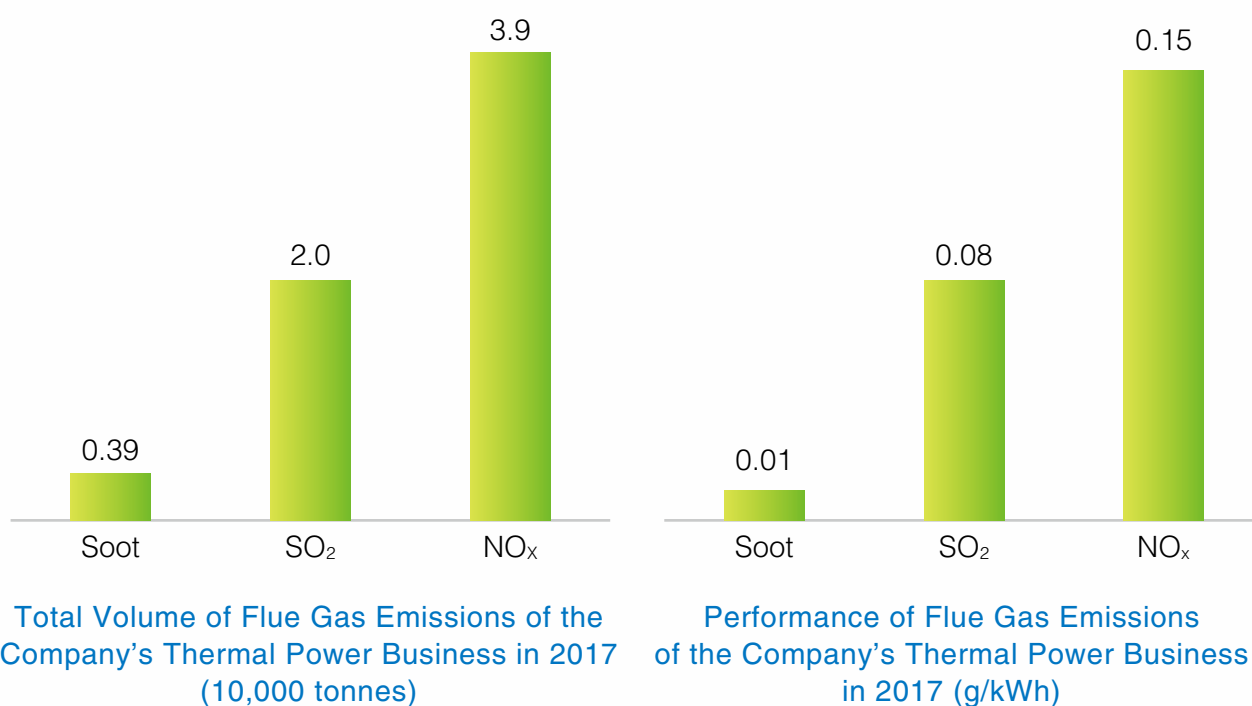
### Promoting Ultra-low Emission

In 2017, which was the last year for the Action Plan on Air Pollution Prevention and Control (2013–2017) (《大氣污染防治行動計劃(2013–2017)》), the Company tried its utmost to minimize air pollutant emission by promoting ultra-low emission at coal-fired plants and advancing dust prevention and technical renovation of boiler. It completed the phased mission of air pollution prevention and control in the Beijing-Tianjin-Hebei Region and its vicinity, and ensured that the air quality met the standards when the national major conferences were convened.





### Major Measures on Prevention and Control of Air Pollution in 2017



## Promoting Circular Economy

The Company vigorously developed circular economy and explored use value of solid waste including coal gangue, fly ash and slag, so as to make greater use of such waste and, therefore, reduce discharge of solid waste. All solid waste that cannot be utilized temporarily would be safely disposed. In 2017, the comprehensive utilization rate of solid waste stood at 32.4%, among which, the comprehensive utilization rate of fly ash, slag and desulfurized gypsum stayed respectively at 73.6%, 49.6% and 86.2%. In 2017, coal gangue consumption was 2.691 million tonnes, equivalent to conservation of 0.77 million tonnes of standard coal, realizing on-site clean conversion of lower-grade fuels.

## Ecological Development

Committed to ecological development, the Company pushed ahead with soil and water conservation, windbreak and sand fixation, subsidence treatment, reclamation and greening as well as other ecological projects, striving to protect and improve the local environment. In 2017, the Company invested RMB332 million in ecological development and built 36.125 million square meters of green land.

### Underground Mines

Following the ecological principle that features “pre-treatment before mining, protection during mining and rehabilitation after mining”, the Company made great efforts to improve the environment of mining sites through subsidence prevention and control, management of coal gangue (soil) piles, rehabilitation and greening for mining sites, and green area management and protection. In 2017, Shendong Coal Group invested RMB264.4 million in 51 ecological projects, covering 3,500 hectares. An integrated “four-in-one” model was established by making breakthroughs in subsidence mitigation and restoration. Daliuta Coal Mine of Shendong Coal Group was granted “National Demonstration Zone for Soil and Water Conservation” (國家水土保持科技示範園區) by the Ministry of Water Resources.

### Open-Pit Mines

Open-pit mines made balance between mining and rehabilitation, promoting rehabilitation during production and operation to restore ecological resources and building ecological parks that incorporate forest land, cash crops, animal farming and tourism based on the equilibrium among rehabilitation, environmental protection and industrial operation. In 2017, Zhunge'er Group invested RMB32 million for rehabilitation and greening of 220 hectares and for construction of modern husbandry project. A cattle breeding base was built in Zhunge'er Group, with revenue amounting to RMB5 million each year. “Zhunge'er Mine Park” was named as national mine park by the Ministry of Land and Resources.

### Along the Railway

The railway sector protected and improved ecological environment along the railway by biological sand control and vegetation planting and maintenance. In 2017, Shuohuang Railway Company invested RMB18.22 million in greening, planting 1,384 trees, 2,120 bushes, lawns of 46,255 square meters, 56,572 ornamental plants and 492 fruit trees, paving 3,320 square meters and building corridors, bridges and walkways. Such achievements earned Shuohuang Railway Company the honor of National Outstanding Company in Forestation (全國園林綠化先進單位).

## Responding to Climate Change

The Company paid close attention to climate change. Upholding the concept of low-carbon and green development, the Company promoted clean coal conversion, developed low-carbon energy, and advocated clean energy consumption, in order to proactively fight climate change.

### Development of Low-Carbon Energy

The Company has been vigorously developing renewable energy such as wind power and hydropower. As of the end of 2017, the installed capacity of wind power and hydropower amounted to 15.75 MW and 125.2 MW, respectively, producing 722 million kWh in total in the year, which realizes a reduction of standard coal consumption by 0.2142 million tonnes and carbon dioxide (CO<sub>2</sub>) emission by 0.537 million tonnes.

### Carbon Management

The Company continued to promote the construction of carbon emission reduction management, and participated in the study on allocation of carbon quota and stress test, which was initiated by the National Development and Reform Commission. The Company carried out demonstration projects for carbon reduction, and conducted pilot construction of carbon-free mine in Shendong Bulianta Mine. It also initiated the “Whole Process 100,000-tonne CCS Demonstration Project” (十萬噸級二氧化碳捕集與封存全流程示範項目) at Jinjie Power Plant.

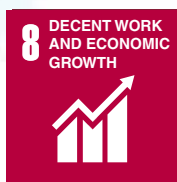


# Mission to Care for Employees for a Better Life Together

China Shenhua always takes it as its essential social responsibilities to protect employees' rights and interests, enable personal growth as well as increase employees' senses of well-being, striving to create values to achieve advancement of both the Company and its employees, with an aim to share company achievements with all its employees.

## SDGs

## Actions



- Providing employees with welfare and benefits in compliance with laws and regulations and protecting employees' rights and interests from infringement
- The Company enters into labor contracts with employees and contributes to social insurance in accordance with the relevant requirements



- Equal pay for equal work of men and women
- Guaranteeing employees' rights of participation. In 2017, 90% of second-tier enterprises have established labor unions, with 99.7% of employees having joined as members

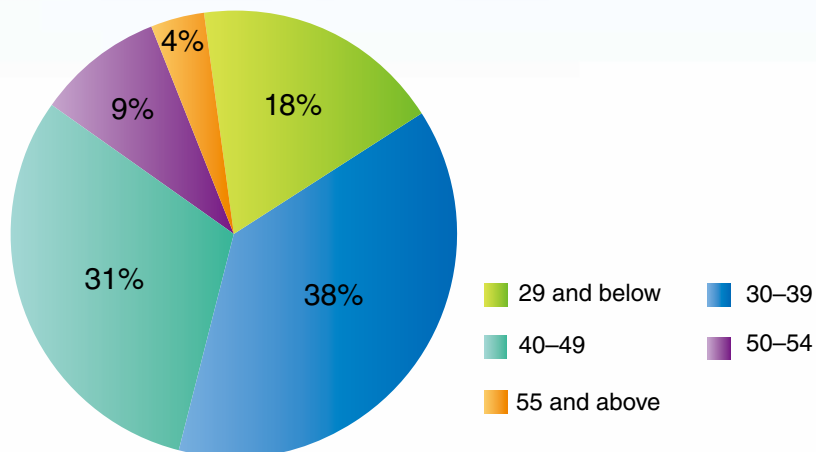




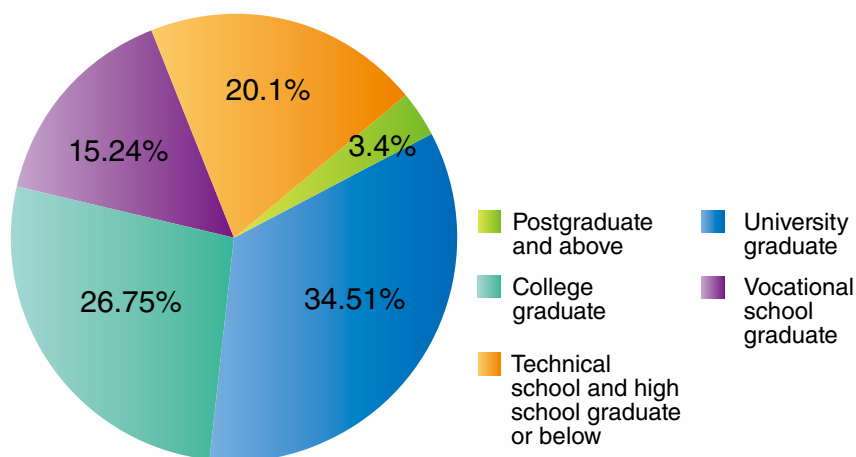


## Safeguarding Rights and Interests of Employees

The Company believes and ensures that every single employee are treated equally without difference while expanding its working team with a focus to build a healthy, rational and efficient team of employees and a working environment of inclusiveness, democracy and harmony.



Employees by age



Employees by education background



### Composition of employees by specialty

Category of professionals	2016	2017	Year-on-year Change (%)
Operation and maintenance	56,155	55,168	1.76 ↓
Management and administration	15,317	13,653	10.86 ↓
Finance and accounting	1,850	1,772	4.22 ↓
R&D and technical support	12,986	14,088	8.49 ↑
Sales and marketing	1,062	933	12.15 ↓
Others	3,512	3,443	1.96 ↓
Total	90,882	89,057	2.01 ↓

### Staff turnover by age and gender

Staff turnover	Aged 29 or below	Aged 30–39	Aged 40–49	Aged 50–54	Aged 55 or above	Total
Male	568	701	146	42	53	1,510
Female	76	81	27	20	8	212
Total	644	782	173	62	61	1,722
Staff turnover rate						1.88%

### Protection of Basic Rights and Interests

The Company has made efforts to improve its employment management mechanism so as to ensure equal job opportunities and competitive salaries and welfare. At the same time, in strict compliance with laws and regulations including the “Labor Contract Law”, China Shenhua standardizes recruitment, prevents employment discrimination, ensures male and female employees get equal pay for equal work, precludes the use of child labor and forced labor, and provides job opportunities for the disabled, minorities and veterans.

### Guaranteeing Democratic Management

With the improvement of workers’ congress by the Company, employees are organized to play their part in democratic management and democratic supervision. A series of regulations and rules have been rolled out to guarantee employees’ rights of democratic involvement and protect their legitimate rights and interests and democratic rights. The Company offers top-down channels and opportunities for better communication, values the advice put forward by every single employee and proactively give feedbacks to and communicate with employees.

## Workers' Congress

Administrative Measures for Proposal Collection of Workers' Congress

Terms of References for Special Committees of Workers' Congress

Implementation Measures for Democratic Appraisal on the Management Team of Enterprise by Workers' Congress

Implement Measures for "Disclosure of Factory Affairs and Democratic Management"

### Employees' democratic management system

## Caring for Employees' Health

The Company strictly complied with the Law of Prevention and Control of Occupational Diseases and other laws and regulations, and established a comprehensive management system for occupational safety and health, the Company endeavors to control and eliminate occupational hazards, keep improving the working environment for employees to eradicate the root causes of occupational diseases. The Company also sets up occupational health and safety management profiles for employees, providing proper treatment and arrangement for those suffering from occupational diseases. In addition, consultation sessions and training on mental health are provided to relieve the stress faced by employees.

### Principal measures for prevention and control of occupational diseases

Management system for prevention and control of occupational hazards	Working environment and individual protection	Prevention and control of occupational hazards such as dust	Fundamental management for prevention and control of occupational hazards
<ul style="list-style-type: none"> <li>Setting up a leading group for prevention and control of occupational hazards</li> <li>Improving administrative measures for prevention and control of occupational hazards</li> <li>Including occupational hazards as a safety management indicator</li> </ul>	<ul style="list-style-type: none"> <li>Equipped employees with advanced and effective protective equipment</li> <li>Deploying professional medical equipment and rescue facilities underground</li> <li>Ensuring employees' nutrition and health and prohibiting overwork</li> </ul>	<ul style="list-style-type: none"> <li>Renewing dust-removal facilities in working places</li> <li>Providing comprehensive treatment for dusts, noises, toxic substances, etc.</li> </ul>	<ul style="list-style-type: none"> <li>Reinforcing training and assessment for occupational health</li> <li>Strengthening monitoring and evaluation on working environment</li> <li>Making prompt adjustment to post rotation and making proper arrangements for employees suffering from sickness</li> </ul>

## Boosting Employees' Career Development

Leveraging on the well-established training and promotion system for employees, China Shenhua has built targeted career paths that suit Shenhua's employees and supported employees' career development planning, so as to achieve mutual development of employees and the Company.



The talents nurturing system of China Shenhua

### Training for Employees of Different Categories

Category of Employees	Total Number of Trainees	Accumulated Training Hours
Management	37,105	374,416
Including: Senior management	2,331	15,137
Senior professionals	91,436	570,154
Technicians	465,248	3,111,021
Others	41,327	135,865





Two-month Training Sessions for Young Talents

## Case study: Technical Skills Competition



Considering technical talents as an integral part of corporate development, the Company puts intensive efforts in fostering a team of technical workers as core backbones. As a stage for showcasing and exchanging the techniques and skills of employees, the technical skills competition further upgrades the technical competency and professional capability of employees. Up to now, the technical skills contest has marked its 16th anniversary.



The Site of Technical Skills Contest

## Caring for the Happiness of Employees

With priority giving to employees' welfare and to caring for employees with special needs, the Company has launched a series of cultural and sports events in addition to the provision of welfare as stipulated by laws, which serve as a platform for employees to showcase their strengths and communicate with others to meet their mental satisfaction and enjoy a happy life.

### Caring for Female Employees

In strict implementation of the specific laws and regulations such as Law on the Protection of Rights and Interests of Women (《婦女權益保障法》) and Law on Maternal and Infant Health Care (《母嬰保健法》), the Company initiated publicity and education in full swing to enhance self-defense awareness of rights and interests of female employees and safeguard various basic interests and rights of female employees.



Provide maternity leave up to 158 days and maternity subsidy for female employees



Lounge, canteen and transport vehicles designated for pregnant women



Set up "Baby Nursery Rooms" and "Mummy's Corner"

### Case study: Shendong Coal Group Promoted Popularization of Legal Knowledge for Females



In 2017, the Female staff committee of Shendong Coal Group organized knowledge contests, for which they built an item bank containing 400 questions, randomly picked the answers from female employees on the Internet and offered gifts by lucky draws, which intensified the publicity and popularization of knowledge to relevant laws and regulations for female employees. The participation rate for female employees amounted to 100%.

### Caring for Employees in Need

The Company stepped up its assistance and support to families with serious diseases and continued with activities such as serious disease relief and college education subsidy. In 2017, RMB2.2697 million of serious disease relief fund was granted by the Company in 2 batches, which benefited 54 employees suffering from serious diseases. Furthermore, the Company carried forward “Sending Warmth to Junior Staff” activity on the 2017 New Year and the Chinese New Year and issued “funds for warmth” of RMB2 million, with a view to sharing fruitful achievements of the Company with employees and helping them enjoy the traditional festival filled with joy and harmony.

### Launching Cultural Activities

The Company organized rich and varied cultural and sports events to enrich employees’ after-work life and encouraged them to cultivate their hobbies besides work in order to ease the stress from work, setting up a broad stage for employees to showcase themselves and present their optimistic and progressive spirit.



The “SHOW ME” theme activity held by Guohua Power Company Limited comprehensively demonstrated the value of being “promising, responsible and hard-working” pursued by the employees, and enriched the culture and living of the employees



Calligraphy and art exhibition of employees



Participation in friendly basketball match between  
“Government Authorities and Enterprises”



# Mission to Care for the Community for Better Well-being

China Shenhua carries forward the concept of “Rewarding the Society and Serving People with a Grateful Heart to the Country” and actively responds to the state on offering a helping hand to targeted poverty alleviation and supporting the community in terms of infrastructure construction, employment, economic development and the harmony between local public and enterprises. The Company explores and practices localization operation and supports the construction of overseas communities along with the development of international businesses and therefore forms the pattern of rewarding the society with Shenhua characteristics.

## SDGs

## Actions

### 1 NO POVERTY



- Donation of winter clothing to the targeted Tibetan who are in need in Nierong County, Naqu District, Tibet
- In 2017, capital expenditure used in targeted poverty alleviation amounted to approximately RMB135 million.

### 3 QUALITY EDUCATION



- Shenhua Foundation made donations of RMB12.16 million for construction of four Shenhua Loving Care Schools.

### 8 CLEAN WATER AND SANITATION



- Assisting in safeguarding safe drinking water of impoverished households in Puge County, Liangshan Prefecture, Sichuan Province



## Contribution to Targeted Poverty Alleviation

Adhering to the strategic planning of pushing forward targeted poverty alleviation by the state, the Company has been taking an active part in poverty alleviation projects under the theme of “Providing the Last Resort for People to Fall Back on in case of Special Difficulty, Ensuring People’s Well-being and Promoting Development” and carrying out activities such as support to target counties and poverty alleviation to targeted poor villages, and focuses on the promotion of poverty alleviation work on education, health care, industry and infrastructure construction. Shenhua Foundation is the main body of the Company to implement poverty alleviation work. The Company is the important governing units and major fund donor of Shenhua Foundation.<sup>Note 1</sup>

In 2017, capital expenditure used in targeted poverty alleviation by the Company amounted to approximately RMB135 million.<sup>Note 2</sup>

For the 2017 targeted poverty alleviation work statistics and follow-up targeted poverty alleviation plan, please refer to the 2017 Annual Report of China Shenhua.



Village-based cadre of Sichuan Energy Company is conducting statistics on medical insurance of villagers

Note 1 Among the donation received by Shenhua Foundation since its establishment, the Company contributed 83% of the total donation.

Note 2 Calculation of capital expenditure used in targeted poverty alleviation: capital expenditure used by Shenhua Foundation in targeted poverty alleviation × proportion of donation from the Company to Shenhua Foundation + capital expenditure directly used in targeted poverty alleviation by the Company.



## Contribution to targeted poverty alleviation – work together with joint efforts



The targeted poverty alleviation team of Baode Power Plant visited Xialiuqing Village, Baode County, Shanxi Province for the research of targeted poverty alleviation



The Company visited 59 impoverished households in 11 villages of Dianta Town, Shenmu County under the organization of the Party committee of Shenshuo Railway Branch and conducted one-to-one targeted poverty alleviation



The Jinjie Coal Mines of Shendong Coal Group provided assistance to the people in need





### Shenhua Loving Care Activities

Anchored by the Shenhua Foundation, the Company pushed forward medical treatment involving joint efforts from the government, enterprises, private organizations and hospitals in medical treatment, conducted in-depth screening and treatment to children who suffer from leukaemia and congenital heart defect and established green channels, loving care units and professional team to ensure effective treatment. In 2017, “Shenhua Loving Care Activities” supported families in difficulties by providing healthcare services to 3,261 children who suffer from congenital heart defect or leukaemia (400 children suffering from leukaemia and 2,861 suffering from congenital heart defect) and conducting screening for congenital heart defect for 21,791 newborns free of charge. “Shenhua Loving Care Activities” was recognized as the “Four ‘100’ – Best Volunteer Service Project” of the “Learn from Lei Feng Volunteer Service Award” by 11 departments including Publicity Department of the Central Committee and Central Office of the Central Commission for Guiding Cultural and Ethical Progress.



A child enjoyed the treatment under Shenhua Loving Care Activity

### Shenhua Loving Care Schools

Guided by the principle of “Offering a Helping Hand, Being Supportive to Charitable Causes and Promoting the Harmony and Development of the Society”, Shenhua Foundation made donations of RMB12.16 million in 2017 for the construction of four school buildings, namely Arele Primary School in Xinjiang, tracks for Baorixile Middle School in Inner Mongolia and Jinfengrunfeng Loving Care Primary School and Kindergarten in Yinchuan, Ningxia, which are all Shenhua Loving Care Schools, with a construction area for schooling of 8,132.91 m<sup>2</sup>.

### Shenhua Loving Care Libraries

In 2017, Shenhua Foundation donated a total of 3.204 million books to certain primary and secondary schools in Ningxia, Xinjiang, Nierong County of Tibet and Bijie City of Guizhou and set up 1,140 “Shenhua Loving Care Libraries” with an aim to promote the stunning Chinese culture, cultivate thinking and broaden the horizons of young people as well as promote the development of cultural, educational and other social causes of minority concentrated regions through book donation to primary and secondary schools in impoverished areas.

By the end of 2017, Shenhua Foundation has donated a total of 24.38 million books to primary and secondary schools in remote and impoverished areas including Ningxia, Xinjiang, Inner Mongolia, Qinghai, Shaanxi, Fujian, Jiangxi, Sichuan, Chongqing, Yunnan, Guizhou and Tibet and set up 12,855 Loving Care Libraries, which benefited approximately 9.84 million students.



Students from Nierong County Middle School are studying in the Shenhua Loving Care Library

## The Spirit of Devotion

The Company has been actively participating in rescue activities and have established the image of Shenhua as a responsible company and attach great importance to voluntary activities, which has manifested the selfless dedication of Shenhua.

### Rescue Activities

Under the support of the emergency rescue team, the Company proactively participated in commencement of rescue work by providing assistance to the local government. Shendong Coal Group was granted the honorary title of “Team with Special Contribution in 7.26 Suide Flood Relief Action” (“7.26綏德抗洪救災特殊貢獻集體”) by the local government in 2017.

### Case study: Central Enterprise Offered a Helping Hand in Facing the Attack of Floods



At the night on 25 July 2017, a massive flood hit Zizhou County and Suide County of Yulin City, Shaanxi Province with 0.3149 million flood victims, causing direct economic loss of more than RMB8 billion. The Company formulated plans and deployed resources at once and Shendong Coal Group immediately responded to the disaster and spared no efforts in the rescue, with 2,954 rescuers and 1,091 vehicles were involved in the rescue, which successfully completed the rescue task and laid a sound foundation for the restoration of the daily life of people and the resettlement of disaster-stricken areas, which demonstrated the responsibility and commitment of the Company as a central enterprise that serves as a befitting presence in time of emergencies and disasters, being highly praised and recognized by the Committees of Zizhou County and Suide County, the county government and the public, which is the perfect example of the deep emotional bond established by the local public and the enterprise.



Rescue Site



## Voluntary Activities

The Company values greatly and encourages the participation in volunteer activities and proactively initiated a diversity of voluntary service activities, such as elderly and child care, and free consultation. In 2017, the service time of volunteers of the Company are 173,222 hours.



The young volunteers of Xuzhou Power Plant visited Changzhi Nursing Home to show their care



Young volunteers visited the community to show their care for the elderly



## Launch of Overseas Charitable Activities

The Company actively responds to the initiative of “Belt and Road” by making good use of advantages including techniques, funds and talents, adopting an innovation-driven pattern for going abroad, supporting the construction of overseas communities, promoting local employment and boosting local economic development.

### Localization Operation

We continue to follow the principle of localization and uphold the philosophy of being an international enterprise with localized operation so as to create jobs for the local residents.



### Open-Pit Mine Company Limited under Shenhua Russia Upholds Localization Operating Measures in Russia

#### Employment of Certain Employees in Overseas Enterprises

Name	Total number of overseas employees	Percentage of local employees to total employees	Number of senior management	Percentage of local senior management to total senior management
Shenhua Australia	24	58%	9	22%
Shenhua Russia	39	89.7%	5	60%

## Case study: Shenhua Australia Participated in the Activity Marking the 140th Anniversary of the Local Mining Industry in Gunnedah



On 16 September 2017, domestic and overseas employees of Shenhua Australia took part in the celebration activity on the “140th Anniversary for the Mining Industry in Gunnedah” organized by Gunnedah Miners Support Group. Shenhua Australia introduced the results of the development of clean energy of Shenhua and the challenging process of obtaining the approval from EIA for its Watermark Project, and the efforts and undertakings we made for the sake of promotion of local employment, economic development, friendly environment and community harmony, which further won the appreciation and support from local public and social organizations over the Watermark Project.



Shenhua Australia participated in the activity themed “140th Anniversary for the Mining Industry in Gunnedah”

### Overseas Charitable Activities

In 2017, during the process of projects, the Company repaired the roads of 40km from the mine area to Sungacha River and the Sungacha River Bridge for the purpose of guaranteeing the needs of outbound coal transportation of the Russian project, and for convenient commuting of local residents, and ensured the safe commuting for local residents.



The Sungacha River Bridge after maintenance

The Company required designers and construction enterprises to carry out their work in strict compliance with relevant requirements stipulated in the laws of Russia in relation to environment protection during the feasibility study, preliminary design and industrial trial production for the Zashulanskoye Project. Also, the Company conducted study on the primordial ecosystem (among others, water resources and ecology, soil resources and ecology, animal and plant resources and ecology, forestry and primordial dairy farming) of the place where the mines are situated.



## Case study: Shenhua Australia Unveiled the Funding Project for the Community



Mr. Lu Yang, the Deputy General Manager and Chief Financial Officer of Shenhua Australia, showed himself at the opening ceremony of Australian Railway Monument (ARM) and Rail Journeys Museum, which are financed by Shenhua Watermark Community Funds, in Werris Creek on 26 September 2017. The exhibitions kicked off and was opened to public, by means of interactive demonstration based on modern technology, providing better experience in the museum, enhancing visitor satisfaction and making contribution to the protection of railway history and community projects with greater vitality.



## Future Outlook

2018 will see the start of China Shenhua to follow out the spirit of the 19th National Congress of CPC. China Shenhua will unswervingly follow the new development concepts: “Innovation, Coordination, Green, Open, Sharing” and focus on the development of the principal business, strengthen business management, continue to enhance its comprehensive strength and market competitiveness, keep boosting sound development of enterprise and share the development benefits with the stakeholders.

The strong pass of the enemy is like a wall of iron, yet with firm strides, we are conquering its summit. At the starting point of a new history, we are excited with our heart leap and full of confidence. In the future, we will continue to push forward the supply-side structural reform, achieve a higher quality, efficiency and sustainable healthy development. We will adhere to the philosophy of people-oriented and protect staff's interests in order to engage in a major concerted effort to advance reform and development. We will also maintain strategic focus and strategic vision, strive for excellence and create more opportunities for us to have a brighter prospect.



# Appendix I: Indicator System on Social Responsibility Performance of China Shenhua

## General Indicators of the Company

First Tier Indicators	Second Tier Indicators	2016	2017
Social Contributions	Social contributions per share (RMB/share) (ASBE)	4.162	6.294
	Social contributions per share (RMB/share) (IFRS)	4.272	6.433
	Cash dividend in aggregate (RMB million) (inclusive of the proposed dividend proposal of the Board)	204,372	222,472
	Final dividend (RMB/share) (tax inclusive) (proposal)	0.46	0.91
	Total tax paid (RMB million)	32,730	48,693
	Donations to society (RMB million)	791	63
	Volunteer service period (hours)	100,324	173,222
Financial	Revenue (RMB million)	183,127	248,746
	Total assets (RMB million) (ASBE)	571,664	567,124
	Total assets (RMB million) (IFRS)	576,729	571,602
	Net profit attributable to shareholders of the Company (RMB million) (ASBE)	22,712	45,037
	Profit for the year attributable to owners of the Company (RMB million) (IFRS)	24,910	47,795
Business	Commercial coal production (million tonnes)	289.8	295.4
	Coal sales (million tonnes)	394.9	443.8
	Total power sales (billion kWh)	220.57	246.25
	Sales of Polyethylene (thousand tonnes)	292.6	324.6
	Sales of Polypropylene (thousand tonnes)	282.1	308.8
	Turnover of self-owned railway (billion tonne km)	244.6	273.0
	Seaborne coal at self-owned ports (million tonnes)	201.3	227.8
	Shipment turnover (billion tonne nautical miles)	63.0	80.4
Stakeholder Relations	Number of information disclosure documents released	160	190
	Percentage of purchase from top five suppliers to total purchase (%)	14.4	15.7
	Percentage of sales revenue from top five customers to revenue (%)	23.0	14.6
	Number of suppliers assessed	92	3,871
Safety Production	Capital investment (RMB100 million)	39.62	39.56
	Safety production training (headcount)	197,423	153,292
	Number of first class intrinsic-safety compliant units	34	41

First Tier Indicators	Second Tier Indicators	Third Tier Indicators	2016	2017
Environmental Protection	Investment in environmental protection	Designated investment in environmental protection (RMB100 million)	15.15	9.68
		Investment in energy conservation (RMB100 million)	10.9	5.84
	Utilization of energy	Integrated energy consumption (10 thousand tonnes of standard coal)	4,667.94	5,056.12
		Integrated energy consumption per RMB10 thousand output value (tonne standard coal/RMB10,000)	3.28	3.18
		Total electricity consumption (10 thousand kWh)	2,222,262.8	2,262,361.17
		Total natural gas consumption (10 thousand m <sup>3</sup> )	111,555	107,435
		Total oil consumption (10 thousand tonnes)	36.8	37.17
		Consumption of other energies (10 thousand tonnes)	Note 1	Note 2
	Utilization of water resources	Total water consumption (million tonnes) <sup>Note 3</sup>	227.7	247.55
		Water consumption per RMB10 thousand output value (tonne/RMB10,000)	14.87	15.57
		Fresh water consumption (million tonnes)	197.49	182.92
		Amount of sewage water produced (million tonnes)	168.68	180.93
		Integrated utilization amount of sewage water (million tonnes)	115.67	129.2
		Recycling rate of underground mine water (%)	68.64	70.86
		Recycling rate of industrial waste water (%)	80.83	85.76
		Integrated utilization rate of sewage water (%)	68.57	71.41

Note 1: Consumption of raw coal amounted to 109.1301 million tonnes, washed coal amounted to 0.7947 million tonnes, coke oven gas amounted to 98.3793 million m<sup>3</sup>, thermal power amounted to 4,772,512.33 million kJ, and gangue (used for fuel) amounted to 3.4352 million tonnes.

Note 2: Consumption of raw coal amounted to 122.9702 million tonnes, washed coal amounted to 1.255 million tonnes, thermal power amounted to 7,927,005.92 million kJ, coke oven gas amounted to 167.0381 million m<sup>3</sup> and gangue amounted to 2.6911 million tonnes.

Note 3: Of the total, consumption of surface water amounted to 102.14 million tonnes, groundwater amounted to 23.04 million tonnes, running water amounted to 39.61 million tonnes, sea water amounted to 39.53 million tonnes and others amounted to 43.21 million tonnes.



First Tier Indicators	Second Tier Indicators	Third Tier Indicators	2016	2017
Environmental Protection	Chemical Oxygen Demand (COD)	Total emission (10 thousand tonnes)	0.17	0.15
	Ecological construction	Capital investment in water and soil conservation and ecological construction (RMB100 million)	1.47	3.32
		New afforestation area (10 thousand m <sup>2</sup> )	1,156.73	3,612.5
	Number of major environmental pollution accidents <sup>Note</sup>		0	0
	Hazardous wastes	Total emission (tonne)	2,358.5	304.52
		Hazardous wastes emissions per RMB10,000 output value (kg/RMB10,000)	0.17	0.019
	Harmless wastes	Total emission (10 thousand tonnes)	3,506.52	3,449.91
		Harmless wastes emissions per RMB10,000 output value (tonne/RMB10,000)	2.46	2.17
	Soot	Total emission (10 thousand tonnes)	0.8406	0.6899

Note: As defined in the “National Emergency Response Proposal for Environmental Incidents (2006)” (Guo Ban Han [2014] No. 119).

First Tier Indicators	Second Tier Indicators	Third Tier Indicators	2016	2017
Employees' Interests	Basic information of employees	Number of current employees	90,882	89,057
		Number of employees with disabilities	413	458
		Number of child labor	0	0
		Number of part-time employees	1	0
		Number of employees from minority ethnic groups	4,932	4,891
		Number of female employees	19,090	18,567
		Newly recruited employees	1,105	494
		Average days of paid annual leave	8	9.1
	Occupational health	Capital investment (RMB100 million)	4.18	3.98
		Additional employees with occupational disease (cases)	11	5
	Staff training	Staff training (a headcount of 10 thousand)	94.57	63.51
		Staff training time in aggregate (10 thousand hours)	393.29	419.15
Technological Innovation	Capital investment in research and development (RMB100 million)		6.64	6.06
	Number of scientific research and development projects undertaken	Number of projects approved by the headquarters	78	90
	Intellectual property rights applications	Number of patents obtained	683	543
		Including: number of invention patents obtained	125	126

## Coal Production and Transportation Business

First Tier Indicators	Second Tier Indicators	Third Tier Indicators	Company's performance in 2016	Company's performance in 2017
Safety Production	Basic conditions	Fatality rate per million tonne of coal mine production	0	0.003
		Number of serious accidents and above <sup>Note 1</sup>	1	0
	Construction results	Mechanization rate of coal mining and excavation (%)	100	99.26
		Number of coal mines with a safety record of consecutive 1,000 days or above	20	21
		Number of super-safe and efficient mines	19	Note 2
Utilization of Resources	Utilization of energy	Comprehensive energy consumption against raw coal production (kg standard coal/tonne)	2.56	2.57
		Electricity consumption against raw coal production (kWh/tonne)	5.88	5.9
		Electricity consumption against prepared thermal coal production(kWh/tonne)	2.68	2.78
		Comprehensive energy consumption against railway turnover (kg standard coal/10 thousand tonnes kilometers)	25.12	24.29
		Comprehensive energy consumption against port throughput (kg standard coal/10 thousand tonnes)	2,249.22	2,160.06
		Comprehensive energy consumption against shipping turnover (kg standard coal/1,000 tonnes nautical miles)	5.33	5.17
		Energy consumption against polyolefin produced from coal (kg standard coal/tonne)	5,100.56	5,274.59
	Recovery rate in coal mining area	Average recovery rate in mining area (%)	88.4	88.22
		Average recovery rate in mining area of underground coal mines (%)	83.95	84.15
		Average recovery rate in mining area of open-cut mines (%)	97.9	97.82
	Coal washing and preparation	Raw coal washed and processed (million tonnes)	273.6	268.74
		Gangue removed (million tonnes)	27.4	26.87
		Reduction in railway freight turnover due to gangue removed (100 million tonne km)	164.16	161.22
Emission Treatment	Solid emissions	Coal gangue generated (10 thousand tonnes)	2,893.19	2,780.91
		Integrated utilization of coal gangue (10 thousand tonnes)	415.15	353.91
		Other solid waste generated (10 thousand tonnes)	58.41	78.37
		Integrated utilization of other solid waste (10 thousand tonnes)	0.81	0.78

Note 1 As defined in the "Productions Safety Accident Report and Investigation & Treatment Regulations" (Order No. 493 of the State Council).

Note 2 Super-safe and efficient mines are selected by the China National Coal Association for every two years. Selection for the year has not carried out.

## Power Generation Business

First Tier Indicators	Second Tier Indicators	Third Tier Indicators	Company's performance in 2016	Company's performance in 2017
Condition of Units at the end of reporting period	Total installed capacity (MW)		56,288	57,855
	Installed capacity of coal-fired generators (MW)		54,417	55,984
	Units of 600MW (inclusive) and above	Capacity (MW)	37,000	38,440
		Proportion to the total capacity of coal-fired units (%)	67.99	68.66
	Proportion to the total capacity of coal-fired units for desulfurized units (%)		100	100
	Proportion to the total capacity of coal-fired units for denitrificated units (%)		100	100
	Integrated utilization of the installed capacity of power plants (MW)		6,484	6,484
	Installed capacity of air cooling technology (MW)		12,400	13,720
	Installed capacity of heating units (MW)		18,024	19,354
	Installed capacity of wind power units (MW)		15.75	15.75
	Installed capacity of hydropower units (MW)		125.2	125.2
Safety production	Basic conditions	Number of serious accidents and above <sup>Note</sup>	0	0
Utilization of resources	Consumption of energy	Average consumption of standard coal for power output dispatch of coal-fired units (g/kWh)	315	311
	Utilization of water resources	Fresh water consumption for thermal power generation (kg/kWh)	0.65	0.65
		Water resource from sea-water desalination (10 thousand tonnes)	1,488.26	1,496.38
	Utilization of renewable resources	Wind power generation (10 thousand kWh)	3,075.18	1,827.04
		Hydropower generation (10 thousand kWh)	66,749.98	70,338.67

Note As defined in the "Productions Safety Accident Report and Investigation & Treatment Regulations" (Order No. 493 of the State Council).



First Tier Indicators	Second Tier Indicators	Third Tier Indicators	Company's performance in 2016	Company's performance in 2017
Emission treatment	Soot treatment	Performance of Soot emission from thermal power generation (g/kWh)	0.021	0.0148
		Total emission (10 thousand tonnes)	0.497	0.387
	Sulphur Dioxide (SO <sub>2</sub> ) treatment	Performance of SO <sub>2</sub> emission from thermal power generation (g/kWh)	0.096	0.08
		Total emission (10 thousand tonnes)	2.25	2.05
	Nitrogen oxide (NO <sub>x</sub> ) treatment	Performance of NO <sub>x</sub> emission from thermal power generation (g/kWh)	0.16	0.15
		Total emission (10 thousand tonnes)	3.73	3.94
	Coal fly ash and cinder and desulphurised gypsum	Total generation (10 thousand tonnes)	1,956.77	2,244.89
		Integrated utilization (10 thousand tonnes)	1,329.64	1,568.78

## DESCRIPTION OF ESG UNDISCLOSED INDICATORS

Number and Name of Indicator	Reason for Undisclosed Indicators
A1.2 Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility).	The Company is mobilizing all the relevant production enterprises to carry out audit on carbon footprint data for 2016 and 2017 in accordance with the Notice on Formulation of the Carbon Emission Reports for 2016 and 2017 and Review and Emission Monitoring Plans (Fa Gai Ban Qihou [2017] No. 1989) 《關於做好2016、2017年度碳排放報告與核查及排放監測計劃制定工作的通知》(發改辦氣候[2017]1989號) issued by the NDRC and the audited data shall be reviewed and confirmed by the government organizations of all levels. The data relating to greenhouse gas emissions for 2017 is expected to be finalized after May 2018.
A2.5 Total packaging materials used for finished products (in tonnes) and, if applicable, with reference to per unit produced.	N/A

## Appendix II: GRI Standards Content Index

INDEX NUMBER AND DESCRIPTION	PAGE	EXTERNAL ASSURANCE
<b>GRI 101: Basis</b>		
<b>GRI 102: General Disclosures</b>		
Organizational profile		
102-1 Name of the organization	1	No
102-2 Activities, brands, products and services	1	No
102-3 Location of the headquarters	1	No
102-4 Operating location	1	No
102-5 Ownership and legal form	1	No
102-6 Market served	1	No
102-7 Scale of the organization	1	Partial
102-8 Information about employees and other workers	52-55	Partial
102-9 Supply chain	17, 22, 23	Partial
102-10 Material changes of the organization and its supply chain	22, 23	Partial
102-11 Alert principles or guidelines	19	No
102-12 External initiatives	15	No
Strategy		
102-14 Statement from the senior decision-maker	6	No
102-15 Key impacts, risks and opportunities	6	No
Ethic and integrity		
102-16 Values, principles, standards and norms of behavior	19	No
102-17 Advice on ethics and mechanism of concerned issues	19	No
Governance		
102-18 Governance structure	11, 18	No
102-19 Authorization	11	No
102-20 Responsibilities on economic, environmental and social issues shouldered by executive management	11	No
102-21 Negotiation carried out for economic, environmental and social issues with stakeholders	14	No
102-22 Composition of the highest governance body and its committees	18	No
102-23 Chairman of the highest governance body	18	No

INDEX NUMBER AND DESCRIPTION	PAGE	EXTERNAL ASSURANCE
102–26 Functions of the highest governance body in formulating the principle, values and strategy	11	No
102–27 Collective understanding of the highest governance body	11	No
102–29 Identification and management of impacts on economy, environment and society	4	No
102–30 Effects of risk management procedures	19	No
102–31 Review and consideration of economic, environmental and social issues	4	No
102–32 Functions of the highest governance body in the sustainability report	4	No
102–33 Communication on significant concerned matters	14	No
Stakeholder communication		
102–40 List of stakeholder groups	14	No
102–41 Collective negotiation agreement	53, 54	No
102–42 Identification and selection of stakeholders	4	No
102–43 Guidelines for stakeholder engagement	4	No
102–44 Major issues and concerned matters raised	4	No
Reporting practice		
102–45 Entities covered in the consolidated financial statements	2	No
102–46 Defining the contents of reports and issue boundaries	2	No
102–47 List of substantive issues	4	No
102–49 Changes of reporting	2	No
102–50 Reporting Period	2	No
102–51 Latest reporting date	2	No
102–52 Reporting cycle	2	No
102–53 Contact point for questions regarding the report	3	No
102–54 Statement for reporting in compliance with GRI standard	2	No
102–55 GRI contents index	80–84	No
102–56 External assurance	88	Yes

INDEX NUMBER AND DESCRIPTION	PAGE	EXTERNAL ASSURANCE
<b>GRI 200 Economics</b>		
GRI 103 Management measures		
103–1 Explanation on substantive issues and its boundaries	4	No
103–2 Management measures and its composition	18	No
<b>GRI 201 Economic performance</b>		
201–1 Economic value directly generated and distributed	17, 22	Partial
GRI 202 Market performance		
202–2 Proportion of senior managements employed from local communities	68	No
GRI 203 Indirect economic impacts		
203–1 Infrastructure investments and supporting services	70	No
GRI 204 Procurement practices		
204–1 Proportion of procurement expenditure to local suppliers	22	No
GRI 205 Anti-corruption		
205–2 Communication and training on anti-corruption policies and procedures	19	Partial
205–3 Confirmed corruption incidents and actions taken	19	No
<b>GRI 300 Environment</b>		
GRI 103 Management approach		
103–2 Management approach and its components	40, 41	No
103–3 Evaluation of management approach	42	No
GRI 301 Materials		
301–1 Weight or volume of the material used	74	Yes
GRI 302 Energy		
302–1 Energy consumption within the organization	74, 77, 78	Yes
302–3 Energy intensity	74, 77, 78	Yes
302–4 Reduction of energy consumption	43, 44	Partial
302–5 Reduction in energy requirements of products and services	43, 44	No



INDEX NUMBER AND DESCRIPTION	PAGE	EXTERNAL ASSURANCE
GRI 303 Water		
303–1 Water withdrawal by source	74, 78	Yes
303–3 Water recycled and reused	46, 74, 78	Yes
GRI 304 Biodiversity		
304–1 Operational sites owned, leased managed in, or adjacent to protected areas and biodiversity areas outside protected areas	48	Partial
304–2 Significant impacts of activities, products, and services on biodiversity	48	No
304–3 Habitats protected or restored	48, 75	Partial
GRI 305 Emissions		
305–5 Reduction of volume of greenhouse gas emissions	49	Yes
305–7 No <sub>x</sub> , So <sub>x</sub> , and other significant air emissions	79	Yes
GRI 306 Sewage and waste		
306–1 Total water discharged by quality and destination	46	Yes
306–2 Total amount of waste by type and disposal method	47, 48, 77, 79	Yes
GRI 400 Social		
GRI 401 Employment		
401–1 New employees and turnover rates of employees	53	Yes
401–2 Benefits provided to full-time employees (excluding temporary or part-time employees)	57, 58	No
401–3 Parental leave	57	No
GRI 403 Occupational health and safety		
403–3 Workers with high incidence or high risk of diseases related to their occupation	54, 76	Partial
403–4 Health and safety issues covered in formal agreements in trade unions	54	No
GRI 404 Training and education		
404–1 Average hours of training per year per employee	76	Yes
404–2 Skills improvement program and transition assistance program for employees	55, 56	No

INDEX NUMBER AND DESCRIPTION	PAGE	EXTERNAL ASSURANCE
GRI 405 Diversity and equal opportunity		
405–1 Diversity of governance institutions and employees	76	Partial
405–2 Ratio of basic salary and remuneration of women to men	76	No
GRI 406 Anti–discrimination		
GRI 407 Freedom of association and collective		
407–1 Operational sites and suppliers in which the right to exercise freedom of association and collective negotiation may be at risk	53, 54	No
GRI 413 Local communities		
413–1 Operational sites with implemented local community engagement, impact assessments, and development programs	62, 63	Partial
GRI 414 Social assessment on supplier		
414–1 New supplier screening using social standards	22	Yes
GRI 418 Customer privacy		
418–1 Substantiated complaints regarding breaches of customer privacy and losses of customer data	N/A	In 2017, China Shenhua had no complaints regarding infringement of customer privacy and loss of customer data

## Appendix III: Disclosure Recommendations of Shanghai Stock Exchange and ESG Contents Index of Hong Kong Stock Exchange

Content of the Report	Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange	Recommendations of disclosure of the Shanghai Stock Exchange
<b>About the Company</b>		
<b>About the Report</b>		Preparation Guidelines Article 3, Preparation Guidelines Articles 1, 2
<b>Compilation of This Report</b>		
<b>Chairman's Statement</b>	A1, A1.5, A3, B6, B8.1, B8.2	
To Fulfill Responsibility and Remain Committed to the Original Aspiration		
CSR Culture		
CSR Management		Notice Articles 1, 2
Full Integration of Social Responsibility		
CSR Communication		
Social Contribution per Share		Notice Articles 4, Preparation Guidelines Article 5
CSR Honors		
<b>Economic Mission with Quality at the Heart</b>		
Corporate Governance		
Operation Compliance	B6, B7, B7.1, B7.2	
Efficient Operation		
Win-win Cooperation	B5, B5.1, B5.2, B6, B6.5	Notice Articles 5(1), (3), Preparation Guidelines Articles 4(3)
<b>Safety Mission and Achieve Rock-solid Operation</b>		Notice Articles 1, 2
Safety Management System	B2, B2.1	
Innovation in Safety Technology	B2	
<i>Establishment of Safety Information System</i>	B2	
<i>Safety Technology Breakthroughs</i>	B2	
Safety Emergency Support	B2	Notice Article 5(1), Preparation Guidelines Article 4(1)
<i>Emergency Management</i>	B2	
<i>Treatment of Potential Risks</i>	B2	
Safety-Oriented Culture	B2	Notice Article 5(1), Preparation Guidelines Article 4(1)
<i>Nurturing a Culture of Safety</i>	B2, B3	
<i>Production Safety Education</i>	B2	
<b>Innovation Mission to Embrace Changes</b>		
Innovation of Management System		
Nurturing Scientific Research Talents		

Content of the Report	Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange	Recommendations of disclosure of the Shanghai Stock Exchange
Breakthroughs in Scientific Research	B6.3	
Science and Technology Exchange and Cooperation		
Mission of Environmental Protection for Green and Sharing Development		Notice Article 1, Notice Article 2, Notice Article 5(2), Guidelines Article 3(1) and Preparation Guidelines Article 4(2)
Optimization Energy Conservation and Environmental Protection Management	A1, A2	Guidelines Article 3(1), (3), (5) and (9)
<i>Developing Energy Conservation and Environmental Protection System</i>	A1, A2	
<i>Increasing Investment in Energy Conservation and Environmental Protection</i>	A1.5, A1.6, A2.3, A2.4	
Enhancement of Energy Conservation and Consumption Reduction	A2.1	Guidelines Article 3(2) and (5)
<i>Cleaning of Coal</i>	A2.3	
<i>High Efficiency of Electricity</i>	A2.3	
<i>High-End Coal to Chemicals</i>	A2.1	
<i>Green Transportation</i>	A2.1	
Promotion of Water Conservation and Better Efficiency	A2.2 , A2.4	Guidelines Article 3(2) and (3)
Strengthening Pollution Prevention	A3, A3.1	Guidelines Article 3(3), (4), (5) and (6)
<i>Promoting Ultra-low Emission</i>	A1, A1.1, A1.5, A3.1	
<i>Promoting Circular Economy</i>	A1.1, A1.3, A1.6	
Ecological Development	A3, A3.1	Notice Article 5(2) and Guidelines Article 3(3)
<i>Underground Mines</i>	A3, A3.1	
<i>Open-Pit Mines</i>	A3, A3.1	
<i>Along the Railway</i>	A3, A3.1	
Responding to Climate Change	A1.5, A3	
<i>Development of Low-Carbon Energy</i>	A1.5	
<i>Carbon Management</i>	A1.5	
Mission to Care for Employees for a Better Life Together		
Safeguarding Rights and Interests of Employees	B1.1, B1.2	
<i>Protection of Basic Rights and Interests</i>	B4, B4.1	
<i>Guaranteeing Democracy Management</i>		
<i>Caring for Employees' Health</i>	B2.3	
Boosting Employees' Career Development	B3, B3.1, B3.2	



Content of the Report	Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange	Recommendations of disclosure of the Shanghai Stock Exchange
Caring for the Happiness of Employees	B1	
<i>Caring for Female Employees</i>	B1	
<i>Caring for Employees in Need</i>	B1	
<i>Launching Cultural Activities</i>	B1	
<b>Mission to Care for the Community for Better Well-being</b>		Notice Articles 1, 2
Contribution to Targeted Poverty Alleviation	B8	Poverty Notice
<i>Shenhua Loving Care Activities</i>	B8.1, B8.2	
<i>Shenhua Loving Care Schools</i>	B8.1, B8.2	
<i>Shenhua Loving Care Libraries</i>	B8.1, B8.2	
The Spirit of Devotion	B8	
<i>Rescue Activities</i>	B8.1, B8.2	
<i>Voluntary Activities</i>	B8, B8.1, B8.2	
Launch of Overseas Charitable Activities	B8	
<b>Future Outlook</b>		
Indicator System on Social Responsibility Performance of China Shenhua	A1.1, A1.3, A1.4, A2.1, A2.2, A2.4, B2.3, B3.2, B5.2, B6.3, B8.2	
GRI Standards Content Index		
Disclosure Recommendations of Shanghai Stock Exchange and ESG Contents Index of Hong Kong Stock Exchange		
Independent Assurance Report		
Assets Distribution Map		
Equity Structure Diagram		
Definition		
Feedback Sheet		

*Notes:* “Notice on Strengthening Listed Companies’ Efforts in Undertaking Social Responsibilities and Issuance of ‘Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange’” is referred to as the “Notice”

“Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange” is referred to as the “Guidelines”

“Guidelines on Preparation of ‘Corporate Report on Performance of Social Responsibilities’” is referred to as the “Preparation Guidelines”

“Notice of Information Disclosure in Relation to Further Optimizing Poverty Alleviation Work of Listed Company” is referred to as the “Poverty Notice”

## Appendix IV: Independent Assurance Report



### Independent Assurance Report

#### To the Board of Directors of China Shenhua Energy Company Limited (the “Board of Directors”):

We have been engaged by the Boards of Directors of China Shenhua Energy Company Limited (“CSEC”) to perform a limited assurance engagement on the information disclosed in its 2017 Social Responsibility Report for the financial period from 1 January 2017 and 31 December 2017.

### Responsibilities of the Board of Directors

The Board of Directors is responsible for the compilation and presentation (including reporting guidelines, limitations, reporting data and relevant identification procedures) of the 2017 CSR Report in accordance with the recommendations of the following guidelines (collectively known as the “SSE Guidelines”) issued by Shanghai Stock Exchange and Hong Kong Stock Exchange:

- “Notice on Strengthening Listed Companies’ Undertaking of Social Responsibilities and issuance of ‘Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange’”
- “Guidelines on Environmental Information Disclosure by Companies Listed on the Shanghai Stock Exchange”
- “Guidelines on Preparation of ‘Corporate Report on Performance of Social Responsibilities’”
- “Environmental, Social and Governance Reporting Guide” (“ESG”), a relevant guideline issued by the Hong Kong Stock Exchange

The Board of Directors is also responsible for determining CSEC’s objectives in respect of social responsibility performance and reporting, including identification of stakeholders and material issues that are relevant to these stakeholders; for establishing and maintaining appropriate performance management and internal control systems from which the reported performance information is derived; and for maintaining adequate records.

### Our Responsibilities

In accordance with our agreed terms of engagement with CSEC, it is our responsibility to carry out a limited assurance engagement and to express a conclusion on CSEC’s compliance with the recommendations of the guidelines issued by Shanghai Stock Exchange and if there were any error that would have a material impact on the Key Social Responsibility Indicators related to ESG disclosed in the Report, based on our work performed; and to report our conclusion solely to the Board of Directors, and for no other purpose. We do not assume responsibility towards or accept liability to any third parties for the contents of this Independent Assurance Report.

### Our Independence and Quality Control

We have complied with the independence and other ethical requirements of the Code of Ethics for Professional Accountants issued by the International Ethics Standards Board for Accountants. Our firm applies International Standard on Quality Control 1 and, accordingly, maintains a comprehensive system of quality control including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

## Basis of Our Work

We conducted our work in accordance with “International Standard on Assurance Engagements 3000: Assurance Engagements Other Than Audits or Reviews of Historical Financial Information” issued by the International Federation of Accountants. We planned and performed our work so as to obtain all the information and explanations which we considered necessary in order to provide us with sufficient evidence to form our conclusions below.

## Procedures, Scopes and Limitations of Our Work

Our procedures performed included interviewing with CSEC’s personnel responsible for collecting, compiling and reporting the information, analyzing the information obtained, and other procedures relevant to the collection of the appropriate audit evidence. Specifically we:

- Interviewing management and staff at CSEC Head Office responsible for collating and reporting the Disclosed Information, and interviewing staff of the centralized departments for business management at CSEC Head Office;
- In accordance with the recommendations of SSE Guidelines and ESG, comparing the information presented in the Social Responsibility Report to corresponding information in the relevant underlying sources from CSEC Head Office to determine whether key information contained in such underlying sources has been included in the Social Responsibility Report;
- Performing analytical review procedures on the selected key indicators relating to environmental protection, production safety and others recommended to be disclosed by SSE Guidelines and ESG;
- Visits to Shenhua Shendong Coal Group Corporation Limited and Guohua Power Branch of the Company, selected on the basis of a risk analysis;
- Reconcile key financial data in the Social Responsibility Report with the audited financial statements.

In a limited assurance engagement, the evidence gathering procedures are less in scope than a reasonable assurance engagement. Accordingly, we do not express an opinion on the effectiveness of any of the CSEC’s application systems, business processes, and the related financial performance data.

We performed our limited assurance engagement over the internal controls and procedures at and information provided by the head office of CSEC, Shenhua Shendong Coal Group Corporation Limited and Guohua Power Branch of the Company. We did not carry out limited assurance engagement mentioned above at any other branches and subsidiaries of CSEC nor involve interviewing with external stakeholders. Moreover, historical comparative data is not within the scope of our work.

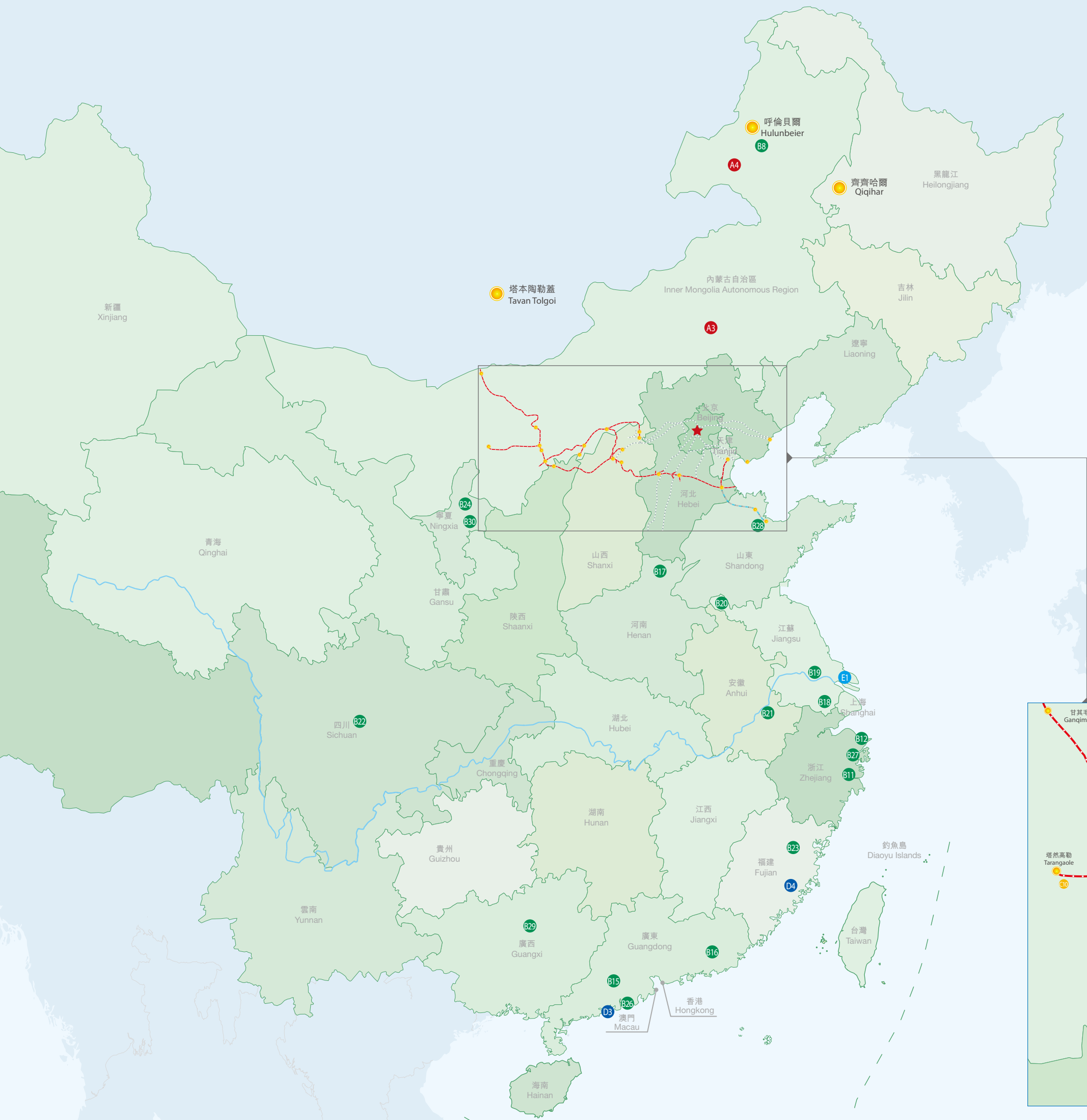
## Our Conclusions

- Subject to the limitation of our work, and the work performed and described in the Independent Assurance Report, nothing has come to our attention that causes us to believe that the 2017 CSR Report was not prepared in compliance with the recommendations of SSE Guidelines at any material respect; and
- Subject to the limitation of our work, and the work performed and described in the Independent Assurance Report, nothing has come to our attention that causes us to believe that there were any error that would have a material impact on the Key Social Responsibility Indicators related to ESG disclosed in the 2017 CSR Report.

This is translation of the Chinese language version of the Independent Assurance Report. If there is any conflict in meaning between the Chinese and English versions, the Chinese version will prevail.



- 圖例 Legend
- 省界線  
Provincial Boundary
  - 國有或地方鐵路線  
State-owned or Local Railway
  - 自有運營鐵路  
Self-owned Railway (in operation)
  - 自有在建鐵路  
Self-owned Railway (under construction)
  - 自有礦區  
Self-owned mines



煤礦 COAL MINE

- A1. 神東礦區  
Shendong Mines
- A2. 准格爾礦區  
Zhong'er Mines
- A3. 勝利礦區  
Shengli Mines
- A4. 寶日希勒礦區  
Baorile Mines
- A5. 包頭礦區  
Baotou Mines
- A6. 澳大利亞沃特馬克煤礦項目（前期工作階段）  
Watermark Coal Project in Australia (preliminary work in progress)
- A7. 新街台格廟勘查區（前期工作階段）  
Xinjie Taigemiao Exploration Area (preliminary work in progress)

電廠 POWER

- |                                     |                               |                                       |                              |
|-------------------------------------|-------------------------------|---------------------------------------|------------------------------|
| B1. 滄東電力<br>Cangdong Power          | B9. 北京燃氣<br>Beijing Gas Power | B17. 孟津電力<br>Mengjin Power            | B25. 南蘇EMM<br>EMM Nansu      |
| B2. 三河電力<br>Sanhe Power             | B10. 綏中電力<br>Sulzhong Power   | B18. 太倉電力<br>Taicang Power            | B26. 珠海風能<br>Zhuhai Wind     |
| B3. 定州電力<br>Dingzhou Power          | B11. 浙能電力<br>Zheneng Power    | B19. 陳家港電力<br>Chenjiagang Power       | B27. 余姚電力<br>Yuyao Power     |
| B4. 盤山電力<br>Panshan Power           | B12. 舟山電力<br>Zhoushan Power   | B20. 徐州電力<br>Xuzhou Power             | B28. 壽光電力<br>Shouguang Power |
| B5. 准能電力<br>Zhong'er Power          | B13. 錦界能源<br>Jinjie Energy    | B21. 神皖能源<br>Shenwan Energy           | B29. 柳州電力<br>Liuzhou Power   |
| B6. 神東電力<br>Shendong Power          | B14. 神木電力<br>Shenmu Power     | B22. 神華四川能源<br>Shenhua Sichuan Energy | B30. 國華寧東<br>Guohua Ningdong |
| B7. 國華准格爾<br>Guohua Zhong'er        | B15. 台山電力<br>Taishan Power    | B23. 神華福建能源<br>Shenhua Fujian Energy  |                              |
| B8. 國華呼電<br>Guohua Hulunbeier Power | B16. 惠州熱電<br>Huizhou Thermal  | B24. 寧東電力<br>Ningdong Power           |                              |

鐵路 RAILWAY

- C1. 神朔鐵路  
Shenshuo Railway
- C2. 朔黃鐵路  
Shuohuang Railway
- C3. 黃萬鐵路  
Huangwan Railway
- C4. 大准鐵路  
Dazhun Railway
- C5. 包神鐵路  
Baoshen Railway
- C6. 巴准鐵路  
Bazhun Railway
- C7. 甘泉鐵路  
Ganquan Railway
- C8. 准池鐵路  
Zhunchi Railway
- C9. 黃大鐵路（在建）  
Huangda Railway (under construction)
- C10. 塔韓鐵路  
Tahan Railway

港口 PORT

- D1. 黃驊港  
Huanghua Port
- D2. 神華天津煤碼頭  
Shenhua Tianjin Coal Dock
- D3. 珠海煤碼頭  
Zhuhai Coal Dock
- D4. 羅源灣項目（籌備中）  
Luoyuan Wan Project (under preparation)

煤化工 COAL CHEMICAL

- F1. 包頭煤化工  
Baotou Coal Chemical

航運 SHIPPING

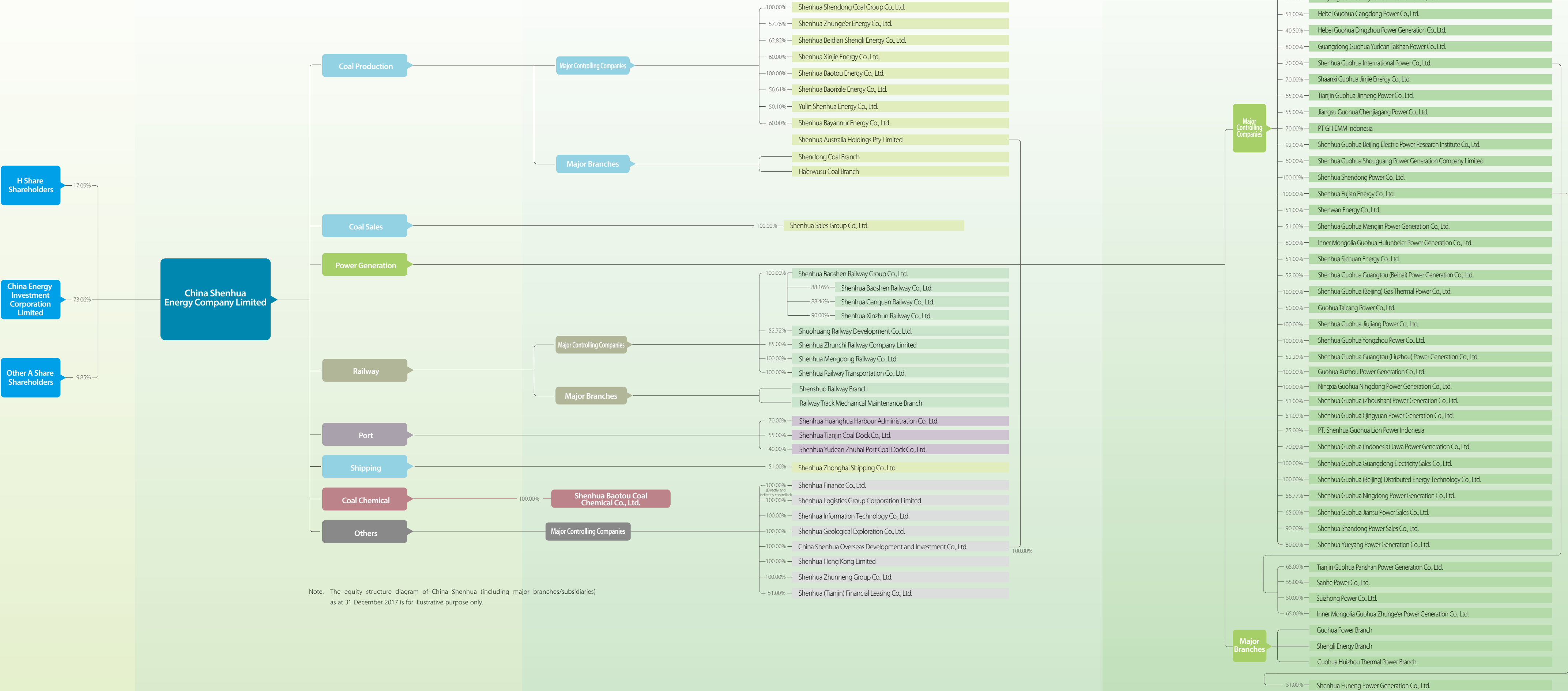
- E1. 神華中海航運  
Shenhua Zhonghai Shipping Company

註：於2017年12月31日之分佈圖，僅做示意。  
Note: This map as at 31 December 2017 is for illustrative purpose only.





Equity structure diagram



## Appendix VI: Definition

Abbreviation	Full Name
CHNENERGY	China Energy Investment Corporation Limited (國家能源投資集團有限責任公司)
Shenhua Group Corporation	Shenhua Group Corporation Limited
China Shenhua or the Company	China Shenhua Energy Company Limited and its controlling subsidiaries, unless the context otherwise requires
headquarters	headquarters of China Shenhua Energy Company Limited
Shendong Coal Group, Shendong Group or Shendong Coal Company	the corporation conglomerate consisting of Shenhua Shendong Coal Group Co., Ltd. and its subsidiaries
Guohua Power Company	Beijing Guohua Power Company Limited
Zhunge'er Group or Zhunge'er Company	Shenhua Zhunge'er Group Co., Ltd.
Shenshuo Railway or Shenshuo Railway Branch	Shenshuo Railway Branch of the Company
Shuohuang Railway Company or Shuohuang Railway	Shuohuang Railway Development Co., Ltd.
Shenbao Energy Company	Shenhua Baorixile Energy Co., Ltd.
Railway Transportation Company	Shenhua Railway Transportation Co., Ltd.
Fujian Energy Company	Shenhua Fujian Energy Co., Ltd.
Sichuan Energy Company	Shenhua Sichuan Energy Company Limited
Shipping Company	Shenhua Zhonghai Shipping Co., Ltd.
Overseas Company	China Shenhua Overseas Development & Investment Co., Ltd.
Shenhua Science and Technology Research Institute	Shenhua Science and Technology Research Institute Co., Ltd.
Shenhua Russia	Общество с ограниченной ответственностью «Разрез уголь»
Shenhua Australia	Shenhua Australia Holdings Pty Limited
Sanhe Power Plant	Sanhe Power Co., Ltd.
Jinjie Power Plant	Shaanxi Guohua Jinjie Energy Co., Ltd.
Xuzhou Power Plant	Guohua Xuzhou Power Generation Co., Ltd.

Abbreviation	Full Name
Ninghai Power Plant	Zhejiang Guohua Zheneng Power Generation Co., Ltd.
Hulunbeier Power Plant	Inner Mongolia Guohua Hulunbeier Power Generation Co., Ltd.
EMM Indonesia	PT.GH EMM INDONESIA
Shanghai Stock Exchange	Shanghai Stock Exchange
Hong Kong Stock Exchange	The Stock Exchange of Hong Kong Limited
Shanghai Listing Rules	Rules Governing the Listing of Stocks on Shanghai Stock Exchange
Hong Kong Listing Rules	Rules Governing the Listing of Securities on The Stock Exchange of Hong Kong Limited
Accounting Standards for Business Enterprises	the latest Accounting Standards for Business Enterprises issued by the Ministry of Finance of the People's Republic of China and the related application guidelines, interpretations and other related requirements
International Financial Reporting Standards	International Financial Reporting Standards issued by the International Accounting Standards Committee
A Share(s)	Ordinary shares that are issued to domestic investors with the approval of CSRC and listed on the domestic stock exchanges, and denominated, subscribed and transacted in RMB
H Share(s)	Ordinary shares that are issued to foreign investors with the approval of CSRC and listed on the Hong Kong Stock Exchange, and denominated, subscribed and transacted in Hong Kong dollar
Articles of Association	Articles of Association of China Shenhua Energy Company Limited
Company Law	Company Law of the People's Republic of China
Securities Law	Securities Law of the People's Republic of China
Law on the Protection of Rights and Interests of Women	Law on the Protection of Rights and Interests of Women of the People's Republic of China
Law on Maternal and Infant Health Care	Law on Maternal and Infant Health Care of the People's Republic of China
SASAC of the State Council	Stated-owned Assets Supervision and Administration Commission of the State Council of the People's Republic of China
NDRC	National Development and Reform Commission of the People's Republic of China

## Feedback Sheet and Contact Information

China Shenhua values your opinions on the Company's endeavors on corporate social responsibility and this Corporate Social Responsibility Report. Your opinions and advice will add momentum to the continual improvement of this Report.

Please fax this sheet to +86-10-5813 1814 or email it to 1088@csec.com after you have answered the following questions.

1. Is there any topic that you are concerned about but is not covered in this Report? If so, please write down the issue(s) that you are concerned about.

---

---

---

---

---

2. Which part(s) of this Report are you most interested in?

---

---

---

---

---

You are welcome to provide personal particulars if you wish:

Name: \_\_\_\_\_

Occupation: \_\_\_\_\_ Organization: \_\_\_\_\_

Contact address: \_\_\_\_\_ Postal code: \_\_\_\_\_

Telephone: \_\_\_\_\_ Fax: \_\_\_\_\_

Email: \_\_\_\_\_

China Shenhua Energy Company Limited  
22 Xibinhe Road, Dongcheng District,  
Beijing, China  
Postal Code 100011

Affix  
stamp  
here

**China Shenhua Energy Company Limited**  
**General office**

22 Xibinhe Road, Andingmen  
Dongcheng District  
Beijing, China  
Postal code: 100011





2016 CSR REPORT



2015 CSR REPORT



2014 CSR REPORT



2013 CSR REPORT



2012 CSR REPORT



2011 CSR REPORT



## **China Shenhua Energy Company Limited**

22 Xibinhe Road, Andingmen  
Dongcheng District, Beijing, China

Postal code: 100011

Tel: +86-10-5813 3399/5813 3355

**[www.csec.com](http://www.csec.com)**