

中石化炼化工程(集团)股份有限公司  
SINOPEC ENGINEERING (GROUP) CO., LTD.



中国石化  
SINOPEC

Stock code : 2386



2018

Environmental, Social and Governance Report

# About This Report

This report is the sixth annual environmental, social and governance report (ESG report) issued by Sinopec Engineering (Group) Co., Ltd. (SEG) from 2013. It mainly elaborates the company's social responsibility practice and performance in 2018 in economic, social and environmental aspects. This report is free of and from false information, misleading statements, and the company guarantees the authenticity, accuracy and completeness of the contents hereof.

**Report Subject:** Sinopec Engineering (Group) Co., Ltd. (hereinafter referred to as "the Company"), and its affiliated subsidiaries and branches (hereinafter referred to as "the Group", "we" and "us").

**Reporting Period:** This report covers the period from 1 January 2018 to 31 December 2018, with some information and figures tracing back to earlier years beyond the stated reporting period.

**Publication Cycle:** This report is an annual report published annually.

**Organizational Scope:** This report covers Sinopec Engineering (Group) Co., Ltd. and its branches and subsidiaries.

**Sources of information:** corporate documents, statistical reports, and summary and statistics of the performance of responsibilities by affiliated enterprises and public institutions. All information is examined by the company's management, the competent departments and all affiliated enterprises. Some of the operation and financial data in this report is extracted from the Company's 2018 annual report. If there is any discrepancy between such data and the annual report, the annual report shall prevail. Unless otherwise stated, all amounts disclosed in this report are measured in Renminbi.

**Compilation Guidelines:** follow the Guidelines on Environmental, Social and Governance (ESG) Report issued by the Stock Exchange of Hong Kong Ltd., and refer to the Guiding Opinions on Performance of Social Responsibilities by Central Enterprises issued by the State-owned Assets Supervision and Administration Commission of the State Council, the GRI Sustainability Reporting Standards issued by the Global Reporting Initiative, the ISO Social Responsibility Guide Standards (ISO 26000), the Guidelines for Preparation of Social Responsibility Reports of Chinese Enterprises (CASS-CSR4.0) issued by the Chinese Academy of Social Sciences.

**Access to the Report:** this report is published in both printed and electronic versions. The electronic version can be downloaded from and browsed at the Social Responsibility Column of the website of Sinopec Engineering (Group) Co., Ltd. at [www.segroup.cn](http://www.segroup.cn).

## Disclaimer:

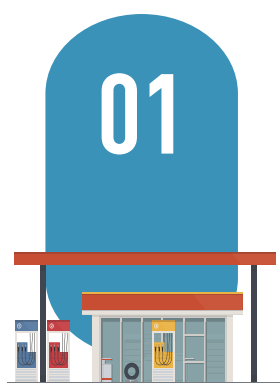
This report includes forward-looking statements. Except the historical facts, all events which are likely to occur or will occur in the future, and the statements of these events (including but not limited to premises, objectives, estimations and business plans) belong to the scope of forward-looking statements. As influenced by external variable factors, the factual future development results or trends may differ from such statements. The forward-looking statements of this report are made in March, 2019. Sinopec Engineering (Group) Co., Ltd. bears no obligation or responsibility for revising the above forward-looking statements.

This report is published in both Chinese and English. Should there be any discrepancy between the two versions, the Chinese version shall prevail.

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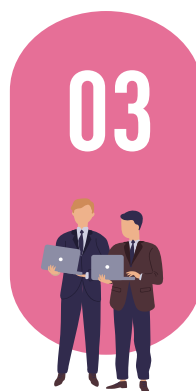
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# Chairman's Statement

## Dear stakeholders and friends:



Yu Baocai, Chairman

First of all, on behalf of the board of directors of Sinopec Engineering (Group) Co., Ltd., I would like to express my heartfelt gratitude to the shareholders and stakeholders for their concern and support for the Group.

God helps those who help themselves, and we make progresses with each passing day. In 2018, under the guidance of socialism with Chinese characteristics in new era and the spirits of the 19th National Congress of the Communist Party of China, the energy industry follows the guidelines of the "13th Five-Year Plan" and ushers in tremendous change and development. Based on energy industry, Sinopec Engineering (Group) Co., Ltd. is sparing no effort to deep plough the industry innovation with our sense of mission, and helps build the modern energy system and industry change. We actively response to the national strategy of "Belt and Road", seize the industrial development opportunity, make a scientific layout in overseas market, deeply study the market planning and overall layout of overseas businesses, and continuously exploit the global target markets, especially the countries and key areas along the "Belt and Road", thus steadily enhancing the contribution degree of international business and continuously improving the development quality. In 2018, we seized the opportunity, forged ahead, and achieved outstanding results and steady operation: the operating income was 47.019 billion RMB, the amount of new contracts signed in 2018 was 50.927 billion RMB, and more than 50 projects were started in 12 countries.

At the same time, we were fully aware that the development of the company is inseparable from the sustainable development of the society and environment. We always upheld the corporate values of "human-oriented, responsibility, integrity, refinement, innovation, and win-win", cherish the voices from the governments, shareholders, customers, employees, suppliers, partners, communities, media, the public and all other stakeholders as always, actively undertake social responsibilities, create shared value with stakeholders, and serve as a contributor for building harmonious and good society.

### Safety quality is crucial

Safety quality is the fundamental guarantee for enterprise development. We gradually improve the management system, and orderly strengthen the risk prevention and control. We always serve building high-quality projects and guaranteeing "steady, long-term, satisfactory and good" operation of devices as one of the key elements which reflect the core competitiveness of the Company, and through establishing advanced project management system and complete project quality management system, we apply strict quality inspection and control throughout the entire production process, and comprehensively guarantee the delivery quality of each project. We continuously strengthen the "three foundations" of safety,

2018  
Operating income

47.019 billion RMB

2018  
New contract amount in the whole year

50.927 billion RMB

pay high attention to improving safety by science and technology, and continuously enhance the intrinsic safety management ability; for overseas project management, we further improve the HSSE management mechanism of the overseas projects, take serious measures to execute the HSSE management standards and procedures of overseas projects, and achieve significant results; meanwhile, we actively implement safety training, constantly strengthen the safety consciousness of employees, and devote ourselves to creating a safe and healthy work environment for the employees. Our efforts are also accepted by the others: one project of our group won the gold award of National Quality Project, three projects won the silver award of National Quality Project; the Malaysia RAPID Project undertaken by Sinopec Engineering Incorporation have won the best contractor safety award presented by Petronas for 5 times.

### Environmental development to build a good environment jointly

We uphold the development concept of “green and low-carbon”, persist in a road of green exploitation and low-carbon development, make great efforts to promote the innovation and businesses in the fields of green and low-carbon, energy conservation and environment protection, focus on the researches on energy conservation and emission reduction, clean and efficient treatment technologies of “three wastes”, actively tackle climate change, and provide services for the customers to reduce environmental impacts. In 2018, the amount of contracts signed by our Group regarding energy conservation and environment protection businesses reached 2.169 billion RMB; we signed a cooperation agreement on CO<sub>2</sub> transformation and utilization with NCF Company from Israel, and launched the site remediation project of Tianjin Petrochemical; we also actively tried new business modes, cooperated with environmental protection and construction enterprises through “EPC + operation”, and provided BOO services such as water supply and sewage treatment plant. Meanwhile, we focused on reducing the

environmental impact generated from the our operation process, continuously improved the environmental management system and environmental management rules, strictly controlled the pollutant emissions, and propelled the conservation of energy resources.

### Actively undertake social responsibility

As a corporate citizenship, we always adhere to the development guidelines of “people first, and mutual benefit between people and enterprise”, implement the strategy of “strengthening enterprise through talents”, safeguard the rights and interests of employees, establish complete career development system and training mechanism, help employees in hardship, hold diversified cultural and sports activities, standardize the overseas employment to effectively promote multi-culture integration; incorporate the growth needs of the employees into the whole process of enterprise development, respect talents, care talents and help talents; endeavor to build harmonious and win-win labor relations, and cherish the growth and development of employees. We actively respond to and implement the basic national strategies of targeted poverty alleviation, actively fulfil our social responsibilities, and practice our status as corporate citizenship in supporting local industry, improving infrastructure, increasing employment and donating to education. In 2018, the accumulative total amount of the donations made by our group reached 500,000 RMB.

Success comes from persistent efforts and creative innovation. In 2019, we will continue working on industrial technology with firm confidence, great strength and gritty attitude, continuously dig our potential, and endeavour to make economic contributions to social development; we will cooperate with the partners from all circles with an open and win-win attitude, promote industrial transformation, seek solutions for severe environmental and social challenges in current era, create a sustainably developing and environmentally friendly high-quality enterprise employees with happiness, and make contributions to constructing a more wonderful world.

2018 energy conservation and  
environmental protection  
business contract amount

**2.169** billion RMB

Total amount in RMB  
donated in 2018

**500,000** RMB

**1**

project obtained national high  
quality project gold award

**3**

projects obtained national  
high quality project silver  
awards

**5**

times of winning the best  
contractor safety award from  
Malay National Petroleum LLC.

# About us

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Company profile

Corporate governance and risk control

Responsibility management



## Company profile

Sinopec Engineering (Group) Co., Ltd. (SEG) is a large integrated engineering service provider and patent licensor controlled by China Petrochemical Corporation ("**Sinopec Group**") and targeted for domestic and overseas refining and chemical engineering markets, and currently is one of the largest engineering construction companies in China. The company has twelve domestic wholly-owned subsidiaries: Sinopec Engineering Incorporation, Sinopec Luoyang Engineering Co., Ltd., Sinopec Shanghai Engineering Co., Ltd., Sinopec Ningbo Engineering Co., Ltd., Sinopec Nanjing Engineering Co., Ltd., Sinopec Guangzhou Engineering Co., Ltd., Sinopec Fourth Construction Co., Ltd., Sinopec Fifth Construction Co., Ltd., Sinopec Tenth Construction Co., Ltd., Sinopec Ningbo Institute of Technology Co., Ltd., Sinopec Heavy Lifting & Transportation Engineering Co., Ltd., Sinopec Energy-Saving Technology Service Co., Ltd., as well as one branch company, i.e. Sinopec Engineering (Group) Co., Ltd. Luoyang Technology R&D Center.

In May 2013, the Group formally launched a global IPO of 1,328 million H shares at an issue price of HKD10.5 per share. The Company was listed on the Hong Kong Stock Exchange on May 23, 2013 and successfully entered the international capital market.

The Group holds qualification certificates issued by the National Development and Reform Commission, the Ministry of Housing and Urban-Rural Development, the Ministry of Commerce, the Ministry of Emergency Management, the Ministry of Ecology and Environment, the Lloyd's Register of Shipping, the International Federation of Consulting Engineers and other international and domestic government departments and

authorities, and formed a comprehensive, multi-level, and wide-ranging talent structure. By virtue of high-quality talents, rich experience in engineering design and construction, strong technical strength, the company can provide domestic and foreign customers with high quality and comprehensive services in oil refining and petrochemical engineering, coal chemical engineering, natural gas chemical engineering, environmental engineering and public works and many other fields.

The Group successfully entered the international market in 1990, established business platforms covering the Middle East, Central Asia, Asia-Pacific, Africa, South America and other areas in the world with large capital expenditures in refining and petrochemical engineering projects. In Kuwait, Saudi Arabia, Qatar, Kazakhstan, Nigeria, Singapore, Bangladesh and other countries and regions, the company undertook a number of oil refining and petrochemical projects, achieved a good international reputation and formed fixed customer base, and accumulatively executed more than 100 projects in the international engineering market from 2005. In 2018, the Company was elected as a deputy secretary general unit of the Expert Committee of China Association of International Engineering Consultants, and according to Engineering News-Record (ENR) in the United States, the Company ranked 68th among the Top 250 Global Contractors, 55th among the Top 250 International Contractors, 46th among Top 150 Global Design Firms, and 59th among Top 225 International Design Firms. The overall strength brand influence of the Group continued to improve.

Top 250 Global  
Contractors rank

No. **68**

Top 250 International  
Contractors rank

No. **55**

Top 150 Global  
Design Firms rank

No. **46**

Top 225 International  
Design Firms rank

No. **59**

### Economic performance:

Indicator	Unit	2018	2017	2016
Total assets	'00 million RMB	708.73	594.06	588.89
Operating income	'00 million RMB	470.19	362.08	394.02
Total profits	'00 million RMB	16.80	16.35	23.77
Total taxes and surcharges	'00 million RMB	25.76	22.67	24.47
Amount of new contracts signed in 2018	'00 million RMB	509.27	390.63	275.64



# Corporate governance and risk control

In order to become a world excellent engineering company, we continuously improved the corporate governance framework, organization, process and assessment, strengthen the compliance and risk management, and include anti-corruption into central tasks, so as to realize healthy and sustainable development of the company.

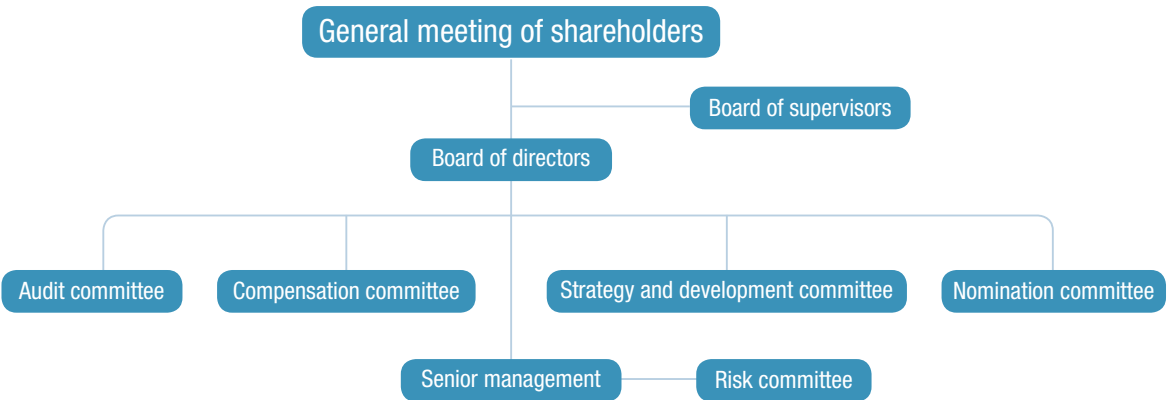
## Corporate governance

The Company strictly abided by the relevant laws and regulations such as the Company Law of the People's Republic of China, the Guidance for Articles of Association of Listed Companies, and the Code of Corporate Governance of Listed Companies issued by the China Securities Regulatory Commission, as well as the listing rules issued by the Stock Exchange of Hong Kong, constantly improved the structure of corporate governance, further clarified the duties and boundaries of the governing bodies such as general meeting of shareholders, the board of directors, the board of supervisors and senior management, and established a corporate governance check and balance mechanism featuring clear division of responsibilities and responsibilities, each performing its own functions, mutual coordination and effective checks and balances, continue improving the corporate governance model featuring scientific decision-making, effective supervision, and operation in good condition to enhance the overall corporate governance of the company.

The board of directors of the group consists of 9 directors, including 4 executive directors, 2 non-executive directors and 3 independent non-executive directors. The board of directors has four special committees namely the audit committee, the remuneration committee, the nomination committee, and the strategy and development committee. They conduct research on professional issues and put forward opinions and suggestions. During the reporting period, the board of directors of the Group organized

and held 1 annual general meeting of shareholders, 1 extraordinary general meeting of shareholders, 2 classified general meetings of shareholders, and 4 meetings of the board of directors; 2 meetings of the audit committee, 1 meeting of each of the nomination committee, the strategy and development committee, and remuneration committee in each year. In addition, during the reporting period, the board of directors revised the company's articles of association for 1 time.

The board of directors of the group pays high attention to the environmental, social and governance related work of the company, and pays close attention to environmental, social and governance strategies and reporting work, including evaluating and determining the related environmental, social and governance risks of the company, guaranteeing the company has established effective environmental, social and governance risk management and internal monitoring system, formulating environmental, social and governance management policies and strategies of the company, periodically reviewing the company performance, examining and approving the data disclosed in the environmental, social and governance report. In September 2018, the group deliberated the environmental, social and governance risk report, and formulated ESG reporting strategy through the meeting of Risk Management Committee. This report will be published after being deliberated by the board of directors in March 2019.



▲ For detailed corporate governance conditions, please see the annual report Corporate Governance and the website of the company under Investor Relations - Corporate Governance.

Under the leadership of the development philosophy of “legal corporate governance and compliant operation”, the Group strictly complied with the Company Law of the People’s Republic of China, The Articles of Association of Companies Seeking a Listing outside the PRC Prerequisite Clauses, the legal regulations and regulatory requirements of China and other territories of operation, continued to launch the study of the legal environment of the domestic and overseas territories of operations, and established a long-term working mechanism that provides policy advice and legal support for major business decisions. In addition, the group continuously improved the compliance system to build a dynamic compliance risk management and control system integrating compliance consulting, legal management, audit supervision, risk prevention and control, and internal control, and counselled and enhanced the compliance review and risk monitoring capabilities of domestic and overseas branches and subsidiaries to achieve compliant, sustained and healthy development.

The group strictly abides by the requirements of SEHK’s relevant policies listed in Annex 27. In the aspect of privacy protection and according to the requirements of Contract Law, it shall not disclose the commercial confidential of both parties under the contract, and if it refers to the commercialization of research findings, it shall keep the technology secret confidential according to the *Law of the PRC on Promoting the Transformation of Scientific and Technological Achievements*; in the aspect of advertisement and label utilization, it strictly abides by *Advertising Law of the People’s Republic of China* and relevant laws and regulations of operation place, such as *Business Material Law* of Kingdom of Saudi Arabia, provides correct and real information to customers; on the aspect of brand construction, the group established *VI Manual and Specification* to standardize the utilization of brand identification. The group abides by the other laws and regulations, which are shown in the description of relevant topics.



### Compliance management

- Rely on global legal resources database and Sinopec legal risk management system and other shared databases, establish a sound global legal resource platform and a dynamic information monitoring system coordinated with Sinopec Group;
- Organize domestic and foreign compliance teams to conduct country-specific legal surveys of regulations and policies of the territories of business operation, regularly and irregularly issue compliance warnings and risk warnings, and enhance the ability to manage and control compliance operations in overseas projects;
- Continuously pay attention to related transactions, improper market behaviours, and disclosure of securities rights, constantly improved the company’s long-term working mechanisms for anti-laundering and anti-commercial bribery.



### Risk management

- Persist in preventing and controlling risks from the source, the company and all subsidiaries and branches of the company have established comprehensive risk management systems;
- Formulate systems such as the Comprehensive Risk Management Measures, the Operational Guidelines for Prevention and Control of Legal Risks, the Guidelines for Review for Legal Risk Prevention and Control Contract, the Implementing Rules for Legal Risk Management, the Contract Management Measures, and the Contract Review Guidelines to standardize the risk management;
- Sort out internal control risk lists, systematically identify major risk factors in various areas, and formulate precautionary measures for comprehensive prevention and control;
- Oriented by risks and problems, organized and implemented 80 audit projects in 2018, which effectively prevent major risks;
- Continuously improve the risk management system for overseas projects, formulate related systems such as the Measures for Management and Control of Overseas Projects, and the Implementing Rules for Risk Management in Market Development of Overseas Projects, strengthen legal review and the review of commercial terms of project contracts, continue to implement the working system of follow-up by special person, seriously follow up major risks arising from project implementation, and timely participate in coordinating and resolving contractual disputes. In 2018, the Company revised the Regulations on Forewarning Management of Overseas Projects, established early warning mechanism, strengthened project change and claim management, and implemented exception control;
- In order to further promote the risk management consciousness, the Company continued to enhance the overseas project risk management training, organized overseas project risk management activities, and publicized and implemented project risk knowledge. During the reporting period, the Company successively made publicity and implementation of and training on its overseas project risk management system for its subsidiaries for 21 times.



### Internal audit

- Establish an internal audit management system of “two levels, dual management, and hierarchical responsibility”;
- Create the audit management system, actively carry out special audits of key aspects of corporate management, and promote the company to improve operation and management practices, to effectively prevent and control risks, and enhance the sustainable and healthy development ability of the company in all dimensions;
- During the reporting period, the Group directly implemented 9 audit supervisions and led audit departments of subsidiaries and branches to implement 71 audit supervisions;
- Pay great attention to the audit management of overseas institutions and projects, and carry out audit supervision from such links as tender quotations, contract signing, project implementation, and subcontract management.



### Internal control system

- According to the changes and requirements of laws, regulations and policies, continuously perfect the SEG Internal Control Manual. The SEG Internal Control Manual guides the Company and its subsidiaries and branches to effectively carry out internal control to prevent the operation and management risks from the perspectives of company-level control, business-level control, authority guidance, inspection evaluation and assessment methods.

# Responsibility management

The Group adhered to the concept of sustainable development of “building a better world”, established perfect social responsibility management system, guided and made an overall plan for the member enterprises of the Group to practice in every aspect of sustainable development, and promoted the implementation of ESG management through perfect indicator assessment system.

## Concepts of responsibility

The Group attached great importance to its mission of “fighting for a better life and jointly building and sharing SEG as a beautiful home”, integrated the social responsibility concept into the decision-making and operation of the Company, earnestly fulfilled the economic, social and environmental responsibilities, actively responded to and satisfied the demands of such stakeholders as governments, shareholders, employees, customers, partners and social public, so as to achieve the joint development, mutual benefits and win-win cooperation among the Company and its interested parties, earn recognition and trust of its interested parties, and build the brand image of the Company as a responsible enterprise.

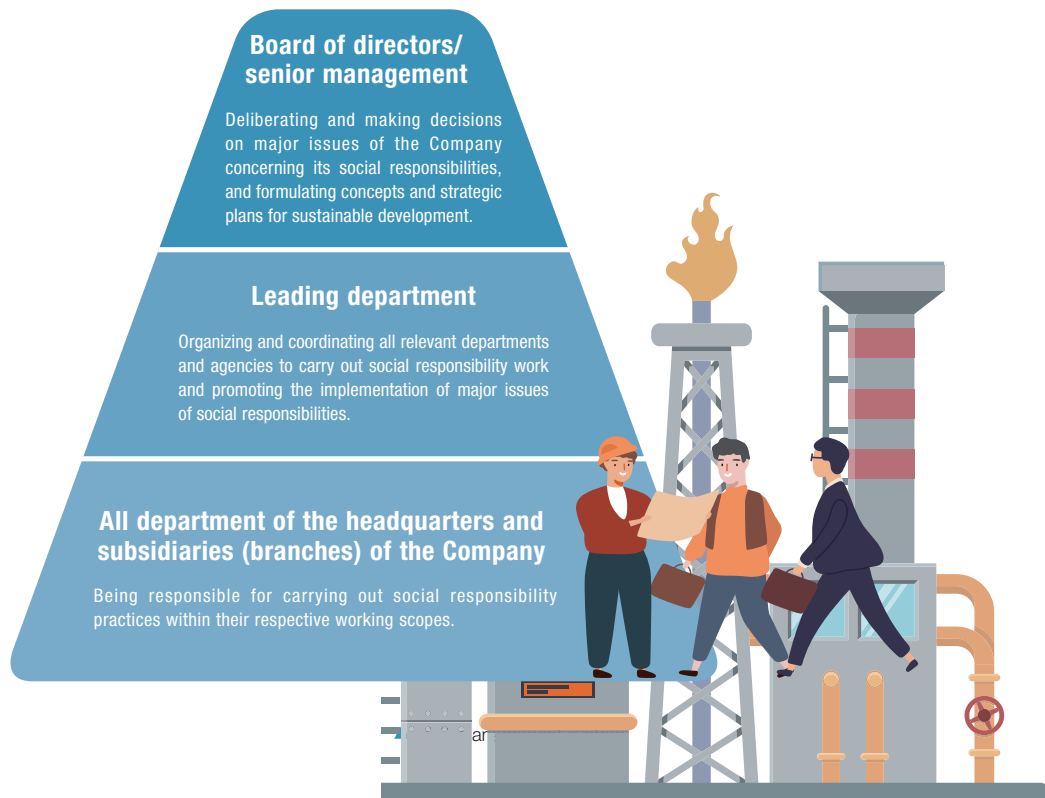


## Responsibility management

The Group has established environmental, social and governance (“ESG”) management system. The board of directors and senior management are responsible for the holistic strategies and reporting of environmental, social and governance, periodically examine the environmental, social and governance information and performance, deliberate safety, environment, employee, investment and many other proposals related to ESG, give unified directions and decisions, and promote the ESG work; as the general leading and coordinating department, the General Management Department is responsible for the coordination and implementation of daily ESG, and periodically reporting to the board of directors and senior management; all departments of the headquarters and all subsidiaries (branches) are responsible for implementing the specific ESG tasks according to their own businesses and functions, and cooperating on submitting ESG performance annually as

needed, disclosing and reporting the annual ESG information.

In 2018, in order to further satisfy the reporting requirements specified in Appendix 27 *Guidelines on Environmental, Social and Governance (ESG) Report* of the listing rules issued by the Stock Exchange of Hong Kong, respond to the 2016/2017 ESG disclosure and examination suggestions on listed companies issued by the Stock Exchange of Hong Kong in May 2018, and in accordance with the *Environmental, Social and Governance Reporting Guidelines* issued by the Stock Exchange of Hong Kong in November 2018, the Risk Management Committee of the Group evaluated and determined the annual ESG reporting strategies, ESG working group organized the annual information disclosure according to the established strategies of the board of directors and the suggestions of independent director.





## Communication with counterparties

The Group established a communication channel for diversified counterparties, and maintained regular communication. During the compilation process of sustainable development report, the Group sorted out the expectations and demands of government, shareholders, customers, partners, employees, communities and other interested parties; in 2018, the Group made a research on internal interested parties through questionnaire, served the research results as the important basis for information disclosure policy, analyzed and determined the key disclosure contents of this report in combination with the issue substantiality.

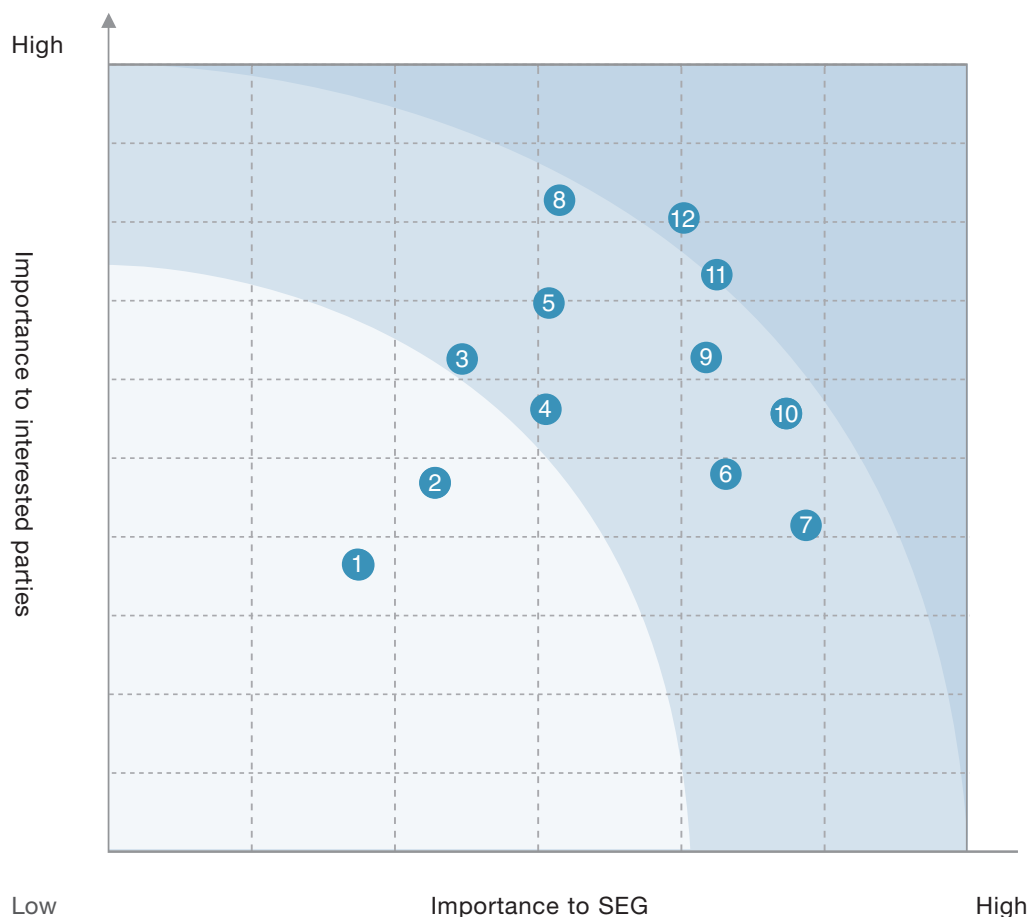
## Demands of Interested Parties and Responses

Interested parties	Expectations and demands	Communications and responses
 The Central Government	<ul style="list-style-type: none"> <li>Serving the development strategies of the State</li> <li>Observing laws and disciplines</li> <li>Maintenance and appreciation of state-owned assets</li> <li>Paying taxes in accordance with the law</li> </ul>	<ul style="list-style-type: none"> <li>Actively implementing the development strategies of the State</li> <li>Conducting management in accordance with laws and regulations to achieve steady growth of business</li> <li>Continuous increase in the amount of tax payment</li> </ul>
 Industrial partners	<ul style="list-style-type: none"> <li>Performance of agreement in good faith</li> <li>Risk prevention and control</li> <li>Cooperation to achieve mutual benefits</li> </ul>	<ul style="list-style-type: none"> <li>Seriously implementing the performance contract</li> <li>Strengthening operational risk management</li> <li>Strengthening strategic cooperation</li> </ul>
 Shareholders	<ul style="list-style-type: none"> <li>Satisfactory return on earnings</li> <li>Strict risk control</li> <li>Good performance in credit rating</li> <li>Smooth communication of information</li> </ul>	<ul style="list-style-type: none"> <li>Steady operation to improve business performance</li> <li>Standard corporate governance and operation in accordance with laws and regulations</li> <li>Advanced management of investor relations</li> <li>Adequate and timely information communication</li> </ul>
 Clients	<ul style="list-style-type: none"> <li>Performance of agreement in good faith</li> <li>Transparent information</li> <li>Privacy protection</li> <li>Excellent products</li> <li>High-quality services</li> </ul>	<ul style="list-style-type: none"> <li>Propaganda activities</li> <li>Customer service hotline</li> <li>Questionnaire survey</li> <li>Communication through the official website, micro-blog and WeChat</li> </ul>
 Employees	<ul style="list-style-type: none"> <li>Protection of employees' rights and interests</li> <li>Growing together</li> <li>Compensation and welfare protection</li> <li>Health and safety</li> <li>Care</li> </ul>	<ul style="list-style-type: none"> <li>Fair employment policies</li> <li>Perfect compensation incentive mechanism</li> <li>Comprehensive staff training</li> <li>Multiple career development platforms</li> <li>Healthy working environment</li> <li>Considerate humanistic care</li> </ul>
 Supply chain	<ul style="list-style-type: none"> <li>Cooperation to achieve mutual benefits</li> <li>Seeking for common development</li> <li>Resource sharing</li> </ul>	<ul style="list-style-type: none"> <li>Good cooperative relations</li> <li>Smooth communication channels</li> <li>Serious implementation of cooperation agreements</li> <li>Sharing of prospective studies</li> </ul>
 Environment	<ul style="list-style-type: none"> <li>Environmental protection</li> <li>Emission of greenhouse gases</li> <li>Waste discharge</li> <li>Effective use of resources</li> <li>Protection of natural resources</li> </ul>	<ul style="list-style-type: none"> <li>Strengthening management over energy conservation and emission reduction</li> <li>Innovating technologies for environmental protection</li> <li>Implementation of green office</li> </ul>
 Communities	<ul style="list-style-type: none"> <li>Stimulating local economic development</li> <li>Infrastructure construction</li> <li>Promoting employment</li> <li>Public good and charity</li> <li>Community participation</li> </ul>	<ul style="list-style-type: none"> <li>Community support and guidance</li> <li>Communication activities for communities</li> <li>Helping and supporting the poor</li> <li>Charitable donations</li> <li>Volunteer activities</li> </ul>
 Social public and media	<ul style="list-style-type: none"> <li>Open and transparent corporate information</li> <li>Maintaining good public relations</li> </ul>	<ul style="list-style-type: none"> <li>Actively carrying out news reports and publicity</li> <li>Providing effective channels for communications with the public and media</li> </ul>
 NGOs	<ul style="list-style-type: none"> <li>Supporting for and cooperating with NGOs</li> <li>Harmonious cooperative relationship</li> </ul>	<ul style="list-style-type: none"> <li>Supporting for NGOs' activities</li> <li>Strengthening communications with NGOs</li> </ul>

## Materiality Analysis

Based on Appendix 27 *Guidelines on Environmental, Social and Governance (ESG) Report* of the listing rules of securities issued by the Stock Exchange of Hong Kong and the international standards, aiming at the relevant environmental, social and governance issues, and based on the communication with the interested parties and the actual conditions of the Company, the Group assessed and

screened the environmental, social and governance matters related and important to our businesses respectively from the perspectives of the importance of issue to the interested parties and the importance of issue to environment and society, and formed a substantiality issue matrix which was served as the ESG concerns and disclosure basis of the company.



- |                           |                                           |                       |
|---------------------------|-------------------------------------------|-----------------------|
| ① Public charity          | ⑤ Training development                    | ⑨ Performance growth  |
| ② Growth of supply chain  | ⑥ Resource conservation                   | ⑩ Green development   |
| ③ Compensation incentives | ⑦ Scientific and technological innovation | ⑪ Compliant operation |
| ④ Employee care           | ⑧ High-quality project                    | ⑫ Safety and health   |

# Green development

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Emission management

Resource Utilization

Protection of environment  
and natural resources



# Emission management

A1 General Disclosure  
A1.1, A1.2, A1.3, A1.4, A1.5, A1.6

The Group strictly observe the Environmental Protection Law of the People's Republic of China, the Atmospheric Pollution Prevention and Control Law of the People's Republic of China, the Water Pollution Prevention and Control Law of the People's Republic of China, the Law of the People's Republic of China on the Prevention and Control of Environment Pollution Caused by Solid Wastes, the Noise Pollution Prevention and Control Law of the People's Republic of China and other national laws and local regulations, as well as the local laws and rules relating to the environment, such as *General Environmental Law* of Kingdom of Saudi Arabia and *Environmental Protection Standard*, etc.

During the reporting period, we had not been sued or punished significantly for violating the environment.

The emission of the group is mainly generated during the project construction period, including greenhouse gases, construction wastewater and construction waste. During the project construction period, the group always pays great attention to green and environmental protection, and integrates into the whole process of construction and production. During the engineering construction, we adhere to the principles of "economy and environmental protection", and through technological innovation and intensified management, we enhance the resource utilization efficiency, reduce the material waste and the environmental destruction and pollution caused by construction, save the land resources, and gain maximum economic benefits and social benefits with least possible resource consumption. In 2018, the group continued improving environment management system, strengthened supervision and inspection, treated wastes with compliance, and the value of greenhouse gas emission intensity is relatively stable compared to last year.

## Establish complete environmental management system:

all branches and subsidiaries have founded HSSE management committee, established complete operation control procedures and assessment mechanisms, and implemented certification of ISO14001 environmental management system

## Carry out environmental protection knowledge training:

carry out environmental protection knowledge training to employees working in different regions or at different posts; organize and lead the employees to participate in various environmental protection public benefit activities, carry out environmental protection exchange within the industry, and continuously strengthen the environmental consciousness of the employees

## Improve environmental management system:

all branches and subsidiaries have specified the environmental protection management contents and requirements of the operation activities, so as to guarantee the protection and management to operation activity environment, and reduce the influence of operation activity on the environment. For example: Environmental Protection Method of Sinopec Fourth Construction Co., Ltd., Environmental Protection Management Procedures of Sinopec Tenth Construction Co., Ltd., and Environmental Protection Management Regulations of Sinopec Nanjing Engineering Co., Ltd.

## Dispose the wastes according to laws and regulations:

for the solid waste and hazardous waste generated from the project site and precast yard, assign a third party with proper qualification to provide compliant disposal, or contact the owner for centralized recycling and disposal

## Strictly control pollutant emission:

take such measures as prevention of watering dust, factory prefabrication, modular construction and specialized cleaning to reduce open-air welding, polishing and corrosion prevention operations, reduce dust and noise emission, and minimize the influence of dust, exhaust gas, noise, light pollution, water pollution and soil protection on the environment; directly drain the waste generated from administration through treatment by septic-tanks into the municipal pipe; reduce noise pollution through erecting noise barrier and noise reduction structure, decreasing night construction and using less large noise construction equipment; take effective measures to promote the reasonable conservation and utilization of materials, recycle the wastes generated from the construction to reduce waste emission as much as possible

## Strengthen supervision and inspection:

periodically organize and launch special inspections to the storage and use of site radioactive sources and hazardous chemicals of the project, strictly control the ray operation and hazardous chemicals treatment, and completely eradicate the occurrence of environmental pollution events

During the reporting period, emissions are as follows:

Type of emission	Unit	2018	2017
Total volume of greenhouse gas emission	Tons of CO <sub>2</sub> e	142,966.18	109,586.78
Greenhouse gas emission per unit of revenue	Tons of CO <sub>2</sub> e/100 million RMB	304.06	302.66
Output of hazardous wastes	Ton	293.78	118.34
Emission density of hazardous wastes	Tons/100 million RMB	0.62	0.33
Treatment rate of hazardous wastes	Percent	100%	100%
Output of harmless wastes	Ton	63,805.71	59,260.86
Emission density of harmless wastes	Tons/100 million RMB	135.70	163.67
Treatment rate of harmless wastes	Percent	100%	100%
Total volume of wastewater	Ton	1,347,263.59	621,782.98
Density of wastewater	Tons/100 million RMB	2,865.36	1,717.25

Note: The emission management system of the group is under improvement, and in 2018, it further standardized the collection caliber and standard of hazardous wastes, non-hazardous wastes and effluent, it increased effluent generated from administration on year-on-year basis to the effluent output; on the aspect of wastes, it standardized the calculation standard of non-hazardous wastes, optimized the collection caliber of hazardous wastes.

### Case: green construction



Project department of Rizhao-Puyang-Luoyang crude oil pipeline project of Sinopec Tenth Construction Co., Ltd.: in order to prevent and control dust pollution, the project department erected standard fences in the construction site; equip fog gun for each machine set to atomize and spray water during pipe trench excavation; cover dust screen on roadbed slope and exposed earthwork;

for the pipe products transport vehicles, strictly control the travel speed and timely flush the operation zone with water; set dust prevention shed during the welding and sandblasting derusting process, strictly observe the environmental requirements of construction site, implement green construction, and strive to create green construction site with beautiful environment.

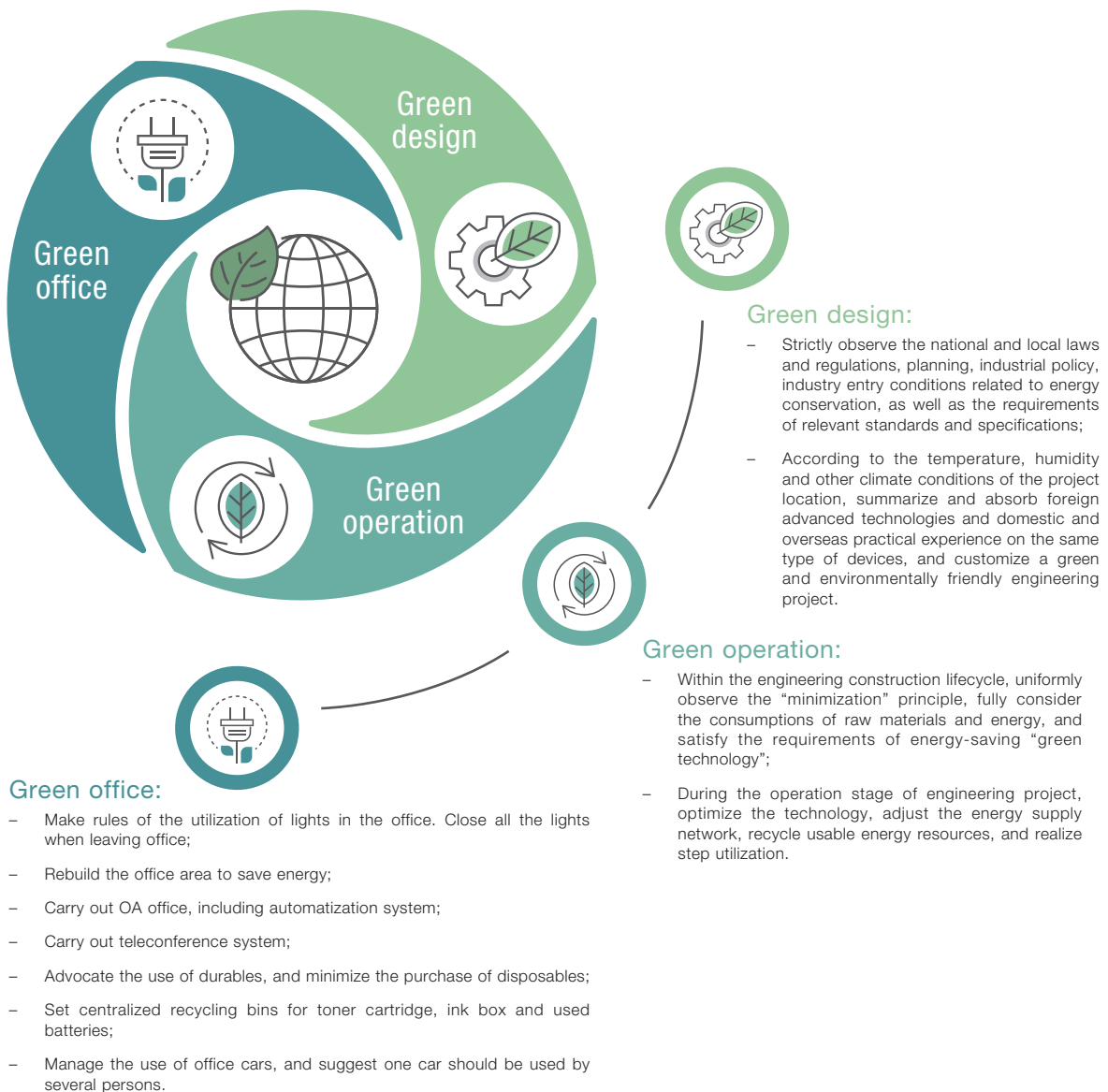


# Resource Utilization

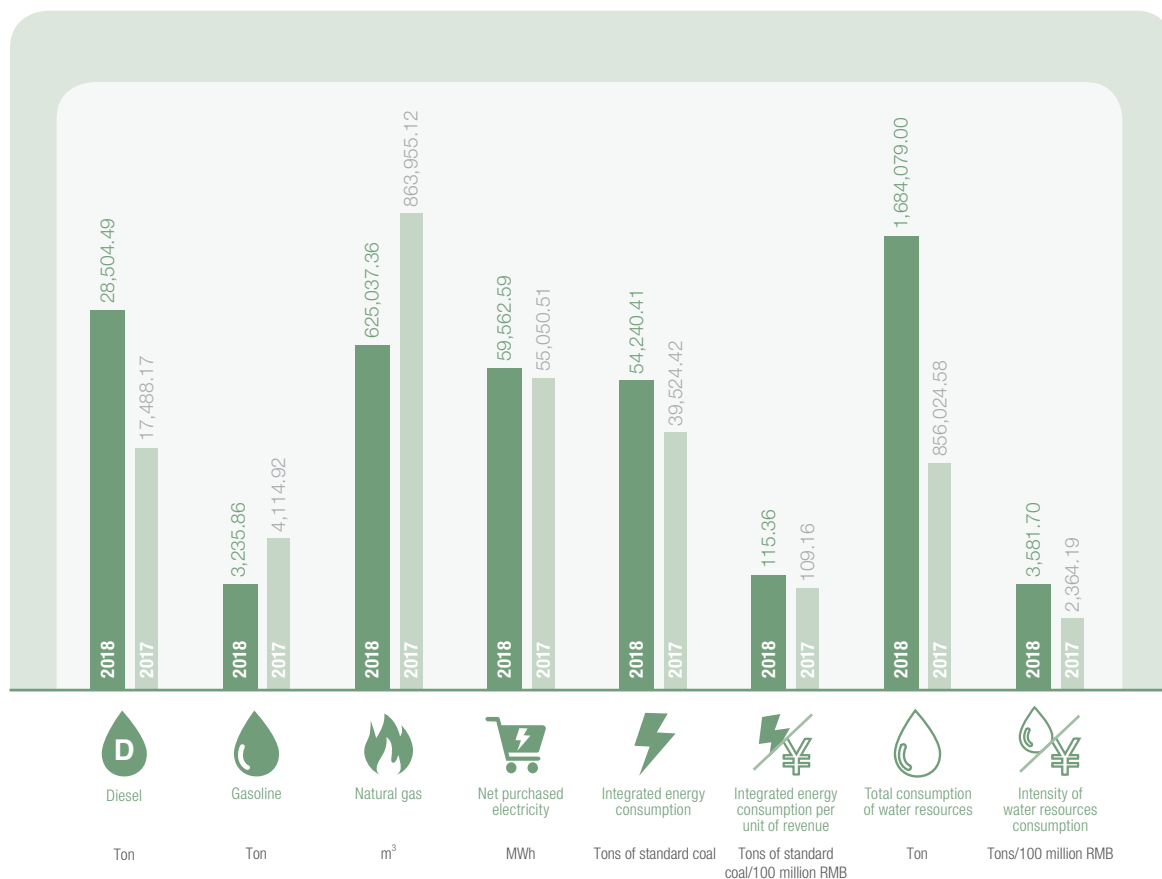
A2 General Disclosure  
A2.1, A2.2, A2.3, A2.4

Efficiency utilization of resources is an important responsibility of the Company. Guided by the relevant energy saving policies and guidelines of *Energy Conservation Law of the People's Republic of China*, we took full advantage of our whole industrial chain to develop and apply new energy, technology and equipment while offering services of the plan, design, consultation, construction and debugging of the petrochemical engineering. We are making efforts to conduct green projects to save energy and reduce consumption. Meanwhile, we encouraged green office. We efficiently used the resources by implementing a series of green office activities. In 2018, the value of Integrated energy consumption per unit of revenue is relatively stable compared to last year.

The Company is engaged in the practice and popularization of energy performance contracting in Sinopec, and take the lead in executing more than ten demonstration projects of energy performance contracting in Sinopec, such as energy conservation transformation of pyrolysis gasoline hydrogenation equipment, process optimization of phenol-acetone equipment heat exchanger network, enhanced heat transfer of heating furnace, nonpolar air flow regulation of compressor, exhaust gas recycling, and global optimization of circulating water equipment; the annual amount of energy saving reaches 30,000 tons of standard coal.



During the reporting period, the amounts of resource consumption were as follows:



Note: The energy management system of our group has been improving constantly. The scope and methods of the collection process of energy consumption data has been further regulated in 2018. Therefore, the growth of total energy consumption is relatively small in the past year, the value of Integrated energy consumption per unit of revenue is relatively stable compared to last year.

### Case: the design of “embedded sewage treatment plant” won the bronze award of innovation project presented by International Water Association



On the World Water Congress held by International Water Association in Tokyo from September 16 to 21, 2018, the Sewage Treatment Plant of Dalian Hengli Project, whose engineering design had been accomplished by Sinopec Guangzhou (Luoyang) Engineering Co., Ltd. (LPEC), won the bronze award of Project Innovation Awards of International Water Association 2018 among more than 170 projects from over 50 countries by virtue of the design concept of “embedded sewage treatment plant”. This award-winning sewage treatment plant adopted the design concept of “embedded sewage treatment plant”, and was an innovative research achievement based on Dalian Hengli Project; it utilized 24 main technological units and 12 patented technologies, to optimize the process continuously, thus reaching dual purposes of decreasing operating cost and reducing pollutant emission, and realizing the objective of treating waste with waste.

## Protection of environment and natural resources

A3 General Disclosure  
A3.1

“lucid waters and lush mountains are invaluable assets”, as a responsible enterprise, the Group strictly observes the Environmental Protection Law of the People’s Republic of China and the relevant environmental protection laws and regulations of project operation territory, fully evaluates the influence of project construction and operation stages on the environment, utilizes advanced environmental protection techniques and technologies to protect and improve the ecological environment along the project boundary (pay special attention to protect the biodiversity), actively fulfill the foreign and domestic environmental protection responsibilities, realize green development, and build an image of environment friendly enterprise.

In the meantime, the Group utilizes its advanced technology and technology to exploit the contaminated site and groundwater remediation markets in petrochemical industry,

actively help the clean transformation of petrochemical industry, and reduce the environmental pollution. In June 2018, the soil remediation center of our company successfully won the bid for the soil remediation EPC project of Tianjin Petrochemical Polyether Division. As to the rural pollution remediation, our company actively responded to the Special Action Plan for Implementing Rural Vitalization Strategy and Solidly Advancing Beautiful Country Construction (2018-2020) of Beijing, cooperated with the New Energy Research Institute of China University Of Petroleum (Beijing) and Junlan Technology Group to carry out agriculture, forestry and domestic wastes reduction and energy conversion pilot project in Jiangtun Village, Nanshao Town, Changping District, Beijing, thus driving the construction of beautiful country.

### Case: reduce environmental impact during construction process, and protect the rare animals and plants in project territory

Sinopec Fourth Construction Co., Ltd. entered Pulau Muara Besar, Brunei in 2012 to participate in the construction of petrochemical engineering project. In order to reduce the

influence of project construction on local ecology, and protect the rare animals and plants on Pulau Muara Besar, before project construction, Hengyi project management team of Sinopec Fourth Construction Co., Ltd. cooperated with Bruneian government and local universities to make thorough investigation on the local ecology, migrated the rare animals and plants for protection, and set six environment monitoring points around the island to monitor and report data in real time, so as to guarantee the project construction satisfies local environmental protection standards and minimize the environmental impacts.





# Gathering Strength

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Build diversified team

More care for employees

Supporting employees' development



## Build diversified team

B1, B3, B4 General disclosure

The Group strictly observed the *Labor Law* of the People's Republic of China, the Labor Contract Law of the People's Republic of China and local laws and rules such as Labor Law of Kingdom of Saudi Arabia, and adhered to equal employment principle; fully safeguarded the rights and interests of the employees regarding employee recruitment, dismissal, promotion, working hours, vacation, salary and welfare, diversity, discrimination prevention and equal opportunity through signing formal labor contract with the employees, preserved the right to know, participation right and supervision right of the employee, opposed child labor and forced labor in any form, and created equal and diversified employee team. In 2018, the company compiled *Reform and Implementation Scheme for Three Systems*, clearly proposed the reform target and specific measures on three aspects, such as HR, labor employment and income distribution, etc. and practically strengthened the construction of diversified teams.

During the reporting period, the Group did not break the rules for using child labor and forced labor, nor was involved in any litigation case due to employment matter.

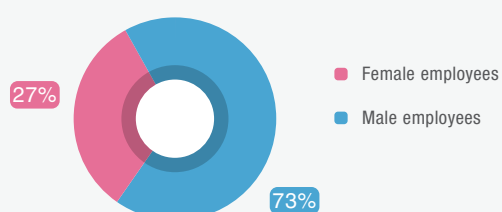
## Equal Employment

B1.1

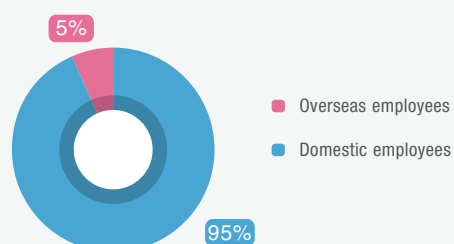
We paid high attention to the diversified composition of employees, assessed the qualifications of professional employees from the perspectives of compliance, attitude, performance and competence, guaranteed all employees enjoyed equal employment opportunity, and firmly eradicate the any discrimination based on gender and age. We adopted multichannel recruitment system, including campus recruitment, social recruitment and internal recommendation. During the recruitment process, we treated equally without any discrimination such as race, color, nationality, language, ethnicity, belief, physical disability and political faction, and advocated employee diversity. During the reporting period, 235 this year's graduates were hired by SEG, making the total number of employees reach 18,031; the labor contract signing rate was 100%.

Overseas employees constitute an important part of our employee team, and support the international development strategy of our company. The Group actively practices the overseas employment responsibilities, actively safeguards the rights and interests of overseas employees, continuously promotes talent internationalization and employment localization, respects cultural fusion, motivates the initiatives of foreign employees to create value for the overseas business layout and realize achievement sharing. In international projects, we participate the job fair organized and held by local chamber of commerce, and accept the position recommendations of the embassy to promote localization of overseas employments. During the reporting period, the Company executed 50 overseas projects (77 contracting contracts), and employed 4,537 overseas employees, 77% of which came from the operation place.

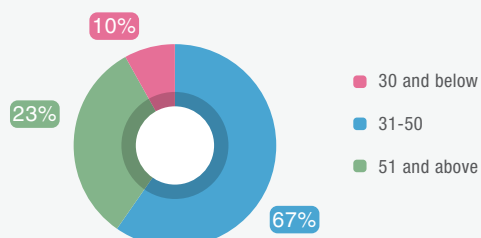
Ratio of male and female employees



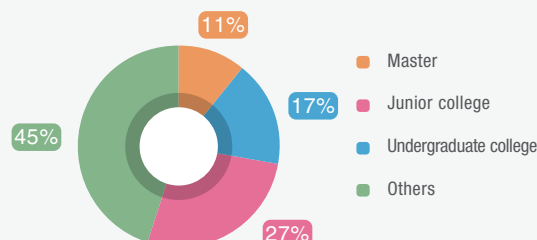
Ratio of domestic and overseas employees



Ratio of employees at different ages



Distribution of employees with different education backgrounds



## Salary and Welfare

The Group upheld the salary distribution philosophy of “paying for value, position and performance”, implemented a competitive salary distribution system in line with the market wage level. Consequently, we focused on the performance and made a medium and long term incentive plan for major employees. In 2018, the Company further improved the performance evaluation mechanism, gave full play to the leading and driving role of assessment and distribution, and implemented work efficiency linked assessment to link the performance of various indicators and the total wage, thus enhancing the incentive and constraint intensities of individual indicator and motivating the employees to create benefits for the Company and co-share the valued results.

In the meantime, the Company continuously improved the welfare system actively. Except for endowment insurance, medical insurance, unemployment insurance, industrial injury insurance, maternity insurance and housing accumulation

funds, we also provided our employees with annuity, supplementary medical insurance, recovery subsidy, only-child allowance, high temperature subsidy and other welfares. For employees in special circumstances, we offered different benefits such as purchasing personal accident insurance for those working abroad and providing assistance for impoverished ones. Additionally, we respect their rights of having holidays. Employees are entitled to enjoy all statutory holidays, and marriage leave, funeral leave, maternity leave, late childbirth leave, breastfeeding leave and other paid leaves.

The legitimate rights and interests of female employees are valued by us. Therefore, we established a committee of female workers to ensure the implementation of the rules on maternity and breastfeeding leaves and regular physical examination, took care of their physical and mental health and occupational development and constantly improved their working environment and conditions.

## Completely eradicate child labor and forced labor

B4.1

The Group opposed any form of forced labor, and strictly avoided child labor, forced labor or any other illegal employments. We strictly follow the international, the national

and local criterions, regulations and rules, conducted eight-hour day and the system of overtime work and compensatory time off to eliminate forced labor.



## More care for employees

B1 General disclosure

The Group pays high attention to the work and lives of our employees, as well as humanistic care. We actively solve the practical difficulties for the employees give necessary supports, for example: we visit the employees who are sick in hospital, in financial difficulties, and the female employees who are in child-bearing period; we will give our condolence to the death of immediate family of the employees. This shows our sincere cares to the employees, and helps them overcome the difficulties and be positive again with a sense of happiness and belonging. Meanwhile, we hold colorful recreational and sports activities to reduce stress in happy atmosphere and better continue their work and lives.

### Assistance to employees

The Group comprehensively implemented the Regulation on Assistance Work of Sinopec, and further improved the assistance working systems of different departments. In combination with the activity of “visiting basic level households”, we improved the measures to help people lift themselves out of poverty and the assistance files, strengthened targeted assistance, and continuously enhanced the assistance level. We visited the employees who were sick in hospital, in financial difficulties, and the

female employees who were in child-bearing period; we gave our condolence to the death of immediate family of the employees, and practically cared the lives of the employees. In the meantime, we used internet, Wechat and other publicity platforms to continuously promote employee assistance program (EAP), relieve the work stress and strengthen job morale, and help all employees to face lives with good spirit and face work with positive attitude.

### Recreational and sports activities

The Group upheld the philosophy of “healthy life, happy work”, formulated the constitutions and management methods of the interest group of the recreation and sports committee of the company union, established many interest groups such as brisk walking, badminton, table tennis, football, basketball, volleyball, chess and card, billiards

and yoga, so as to enrich the spare-time cultural lives of the employees, care for the physical and psychological health of the employees, implement the caring policies of the labor union, practically safeguard rights and interests of employees, enhance exchange and unity, and jointly build and share our beautiful home of SEG.

#### Case: Enrich recreational and sports activities, enhance team vigor and cohesion

In 2018, the Company successively organized the third employees' badminton and cards matches in Qingdao and Nanjing, practiced the philosophy of “healthy life, happy work”, which promoted the launching of popular sports activities and strengthened the exchange and cohesion. In addition, the company also carried out the second employee art show, sent the care of labor union to the construction site of a China-Angola project. These activities strengthened the exchange among different departments and enhanced the overall cohesion.



# Supporting employees' development

B3 General disclosure  
B3.1

The Group firmly established the philosophy of “talents are the first resource, first capital and first driving force”, upheld the talent development guideline of “people first, and mutual benefit between people and enterprise”, and implemented the strategy of “strengthening enterprise through talents”. We satisfied our employees' requirements while improving ourselves. Through a multi-level and multi-faced training system, we enriched training courses, created new teaching methods and made efforts to provide trainings for them through their whole occupational life. Our aim is to enrich their knowledge and experience and improve their comprehensive qualities in order to meet the changeable market and the long-term development of the Company. Meanwhile, in order to build a quality talent team, we constantly improved the promotion mechanism, provided a fair and justice platform for talents, strengthened their sense of being a master and motivated them to realize the value of themselves, positions and the society.

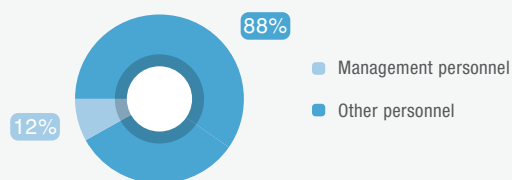
## Employee training

The Group serves the long-term development strategy of cultivating high-quality talent team construction, and takes promoting the comprehensive improvement of employee quality as the starting point. In 2018, focusing on the important measure of strengthening enterprise through talents, and aiming at improving the training efficiency, the company continuously explored new thought and new method of training, vigorously created excellent learning organization, and made positive contributions to promoting the comprehensive improvement of quality and ability of professional technical personnel, and driving the Company to

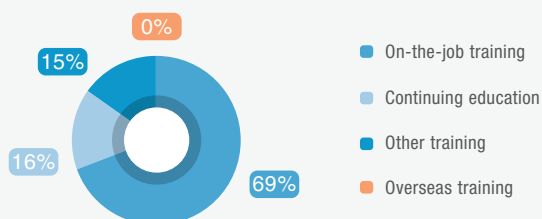
develop towards a higher goal.

During the reporting period, we totally inject 32.69 million RMB and offer trainings to 37,349 employees; the total training duration is 4,205,300 hours, and the average time of training received by each employee is 205 hours. Up to the end of 2018, the Company has 7 national level experts, 47 employees who have won national honorary titles, 4,995 employees who have obtained advanced professional skill qualifications or above, and more than 3,000 employees who own national registered professional qualifications.

Ratio of person-time of different types of employees who receive training



Ratio of person-time of different training contents



### Case: R&D centre launched production practice training for young scientific and technical personnel

In order to further improve the comprehensive quality and scientific research and development capabilities of young scientific and technical personnel, the Company carried out three industrial field production practice trainings in 2018, during which the chief technician and technical director gave systematic explanation in combination with the production facts. In the meantime, the trainees went

deep into the production frontline to get familiar with the technological process and production principles of the devices and equipments, and further intensify the understanding to actual production requirements, thus obtaining further thought to the research directions and broadening the scientific research inspiration.

## Employee promotion

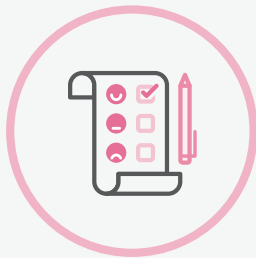
The Group provided unblocked promotion channels and career development and salary adjustment opportunities, and created opportunity and platform for the employees to realize their personal values. The Group actively selected and sent employees to participate in overseas talent training programs, so as to promote internationalization of talent and enhance the international operation capacity.

In 2018, the Company compiled the implementation plan for developing enterprise by talents, and formed five talent team construction goals and cultivating measures, including company management, professional technique, skilled operation, project manager and international talents.



### Establish individual talent development channel:

Highlight the project management characteristics of engineering construction enterprise, include project managers into the talent promotion channel, so as to realize the organic combination of intra- and inter-department promotion of management, professional technique and skilled operation talents.



### Establish professional title evaluation and recommendation mechanism:

We established the Review Committee of Qualifications for Advanced Professional Technique Positions and the Review and Recommendation Committee of Qualification for Professorial Technique Positions, which laid a solid foundation for the usage, flow, cultivation and selection of talents.



### Construct capacity application platform:

We held many competitions involved by employees from different departments and positions, which provided opportunities for talents to stand out and also played an important role in finding, developing and motivating talents. Everyone in the Company loved to learn techniques and skills and made more contributions to the Company.



# 04

## Health and safety

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Safe production

Occupational health and safety training



# Safe production

B2 General disclosure  
B2.3

Safety production is the foundation for the sustainable development of a company. The Group strictly abided by the *Work Safety Law of the People's Republic of China*, *Safety Production License Regulations of the People's Republic of China*, *Enterprise Safety Production License Management Regulations of the People's Republic of China* and the relevant laws and regulations on safe production of the territories of operation, carried out the general requirements of "safe operation is the top priority", established the philosophy of "constructing a project is casting a monument", took international first-class enterprises as examples, laid a solid foundation for management, and by establishing and improving the management system and policy system with an integration of quality and safety, raised the level of prevention and control of safety risks, promoted safety standardization, and implemented inspection on safety production, so as to devote itself to promoting the long-term mechanism for safety production and comprehensively improve the management level of safety production.

During the reporting period, the Group's total investment in safety production amounted to 198 million RMB, and the total number of man-hours without safety accident was 221 million.



Improve safety  
management system

- **Continuously improve safety management system:** Build a top-down safety management organizational structure; set up a QHSE Management Committee and an Emergency Command Center, and each subsidiary establishes safety subcommittee by specialty according to its business characteristics;
- **Establish and perfect safety management system:** The leading cadres implement safety contracting contact point system, and formulate the HSE Standardization Atlas for Engineering Projects and the Standardized Operation Regulations for Engineering Projects to further standardize the site HSE management standards and operation standards, thus improving site operating conditions and environment, reducing unsafe acts of site personnel, and guaranteeing stable operation of the project.



Practice safety design

- **Strengthen safety design management:** Uphold the management philosophy of "safety coming from design", establish engineering design intrinsic safety management committee, and formulate the Intrinsic Safety Design Management Manual of Engineering Project to standardize the standards and requirements for safety design activities;
- **Promote safety benchmarking:** Organize various engineering companies to compare with the international projects, and find the gaps; organize research and development to tackle the existing outstanding technical risks, and carry out modular construction to reduce working high above the ground;
- **Advance safety exchange:** Set up exchange and discussion platform to promote mutual learning and experience sharing;
- **Strengthen design intrinsic safety inspection:** Carry out special examination on the design intrinsic safety, and timely rectify any problem found to continuously improve the design HSE management and promote the enhancement of intrinsic safety management ability;
- **Science and technology project research and training:** During reporting period, carry out 16 engineering design intrinsic safety science and technology project researches, and provide 4 engineering design intrinsic safety trainings for 249 designers.



Intensify safety  
inspection

- **Improve safety inspection mechanism:** further standardize the inspection mechanism and formulate inspection requirements from the perspectives of responsibility assignment, method, analysis and notification, and assessment for rewards and punishments, thus forming normalized working mechanism;
- **Formulate safety inspection specification:** formulate detailed safety inspection outline, which is based on business activity and control process and oriented by problem, and lays a foundation for the effective implementation and efficient execution of supervision and inspection;
- **Establish safety inspection team:** organize more than 50 persons to form 11 specialized inspection brigades from top to bottom, fully grant the powers for safety assessment, ordering site stoppage, immediate punishing violations, and strengthen frontline safety supervision;
- **Combine two types of inspections and highlight the key points:** combine key-point inspection and full inspection of subsidiary, conduct inspections over subsidiaries and projects by taking phase inspections of major projects, annual major inspection and random inspections as ways, and timely look back to supervise and urge the problem rectification; throughout the year, we organized 15 centralized inspections and 6 cross inspections (the inspection objects involve 15 project departments of 9 subsidiaries), found out 289 problems, interviewed 2 subsidiaries, and all inspected problems were corrected;
- **Carry out safety diagnosis of all employees:** set up reward mechanism, and fully motivate the enthusiasm of employees to identify the surrounding potential safety hazards;
- **Closed-loop management of potential safety hazards:** through issuing hidden danger rectification notice, notifying and exposing the inspected problems at company and subsidiary levels, and analyzing the prominent problems and management causes on the safety committee, track and promote the problem rectification, and realize closed-loop management.





Achieve safety risk  
prevention and control

- **Advance risk management and control and potential risks identification and treatment:** established periodical risk identification mechanism, improved risk assessment management method, and further unified risk identification method and evaluation criteria. The Company carried out two risk assessment activities in 2018; carried out dynamic management of safety risks in monthly rolling form, implemented periodical early warning, updating and announcement of the risks at company, subsidiary, secondary unit and project department levels, clearly determined the responsible persons at all levels, formulated and implemented the control measures;
- **Strengthen emergency plan construction:** revised and perfected the emergency management method, organized experts to review the emergency management procedures and special emergency plan emergency plans of various subsidiaries, thus enhancing the suitability and operability of the emergency plan of each emergency plan;
- **Organize and carry out emergency training and drill:** improved the popularization of emergency common sense through making emergency plan cards, setting positions for key emergency processes and convenience; learned typical accident cases to increase safety consciousness; carried out various types and levels of emergency drills to improve the emergency disposal and self-rescue capacity of management personnel.



Impose importance to  
overseas operation safety

- **Strictly abide by local laws and regulations:** At the same time of the continuous development of international business, strictly observe the safety-related laws and regulations of the territory of operation, and pay high attention to the operation safety of overseas project;
- **Improve management mechanism:** In 2018, the Group further improved the HSSE management mechanism of overseas project, established "HSSE Committee" for the overseas projects with many construction participators and great management difficulties, and clearly defined the committee responsibilities and working mechanism;
- **Safety problem exchange and safety problem coordination:** Periodically organized and held meetings, realized resource sharing and consistent progress, timely solved the prominent problems, and promoted the orderly execution of regional HSSE management;
- **Strengthen overseas safety inspection:** For overseas safety inspection, established overseas public safety inspection working group, made patrol inspection to the safety management and implementation in overseas petrochemical projects (such as the project in Brunei), and strengthened the integrated control of overseas projects.

### Case: supervise and examine the transformation of major safety risk management and control project of Cangzhou Refining & Chemical Company

In the relocation and reconstruction project of 85m chimney and reformer, Sinopec Engineering Incorporation and Sinopec Fifth Construction Co., Ltd. paid attention to the management of dangerous and large project, and formulated technical proposal for construction which was verified by experts; implemented the 1+17 system newly issued by the Company for the permits of high-

place operation and scaffold operation; implemented standardized erection and used zinc-plating materials which were uniform and produced good image; when the leaders of Sinopec Engineering Incorporation were inspecting the site, executed safety observation system and leaved witness data; safety video monitoring system was installed on the top of chimney.

### Case: strengthen safety through science and technology

The Company continuously strengthened engineering design intrinsic safety management, organized four engineering project design safety training courses with the participation of 249 designers, thus promoting the enhancement of intrinsic safety design capability. Sinopec Engineering Incorporation strengthened design analysis and examination, and throughout the year, it completed the HAZOP analysis of 49 devices and SIL/LOPA analysis of 5 devices, carried out engineering design intrinsic safety inspection to the executed 52 devices, and timely corrected the problems found, thus realizing risk prevention from source. Sinopec Shanghai Engineering Co., Ltd. formulated SIL assessment and grading procedures according to the integrity grade standards of safety instruments, improved the regulations

on formulating the special article of safety facility design of hazardous chemicals construction project, so as to continuously enhance the design safety level.

The Company paid attention to utilize new technique and new method to promote management innovation. Sinopec Ningbo Engineering Co., Ltd. developed and utilized remote video monitoring system and face recognition system to establish and perfect personnel identity information regulation and realize normalized safety control in the project site; Sinopec Heavy Lifting & Transportation Engineering Co., Ltd. utilized "Yundou" online safety training platform to expand the training channels, so that the employees could utilize fragmentized time for training and learning, thus improving the training effectiveness.

# Occupational health and safety training

B2 General disclosure  
B2.3

The Group, while adhering to the principle of “giving priority to prevention and combination of prevention and control” and the concept of “giving priority to health and safety”, and strictly abiding by the Work Safety Law of the People’s Republic of China, Law of the People’s Republic of China on Prevention and Control of Occupational Diseases, and other relevant laws and regulations of the place of operation, further improved the occupational health safety management system, strengthened the occupational disease prevention measures, and regularly organized medical examinations for its employees in 2018, so as to ensure occupational health of all employees. In the meantime, we continue to improve the safety education and propaganda, comprehensively explore potential energy of human resources, implement the hierarchical, multi-channel, and targeted safety training, to enhance employees’ safety awareness, and foster their safety concept, thus effectively improve their safety and technical quality, and laying a solid foundation for safe production.

## Occupational health

The Group dynamically evaluates the occupational hazard factors in the workplace, identifies and detects the occupational hazard factors in all workplaces, and informs the employees of the detection results. At the same time, the Group strengthens the monitoring and control of key links, positions and groups according to the characteristics of the petrochemical industry and the types of occupational diseases. We carry out special management of occupational hazards in key positions, implement source control and process management, strengthen health surveillance, and change jobs in time if we find any suspicious symptoms, so as to reduce the occurrence of occupational diseases. In terms of individual worker protection, we provide labor protection appliance according to the different occupational hazard factors involved in different positions as required, and carry out regular maintenance or replacement to ensure normal use. For workers who are engaged in tasks in touch with occupational hazards, the Group organizes pre-job, in-job and post-job occupational health examination in strict

accordance with the provisions of the Safety Production Supervision and Management Department and the Health Administrative Department of the State Council, and informs the employees of the inspection results in writing. At the same time, the Group strengthens the research, development and application of new technologies, new products and new processes in the field of occupational health, and promotes the occupational health of the enterprise to a new level relying on scientific and technological progress.

During the reporting period, no occupational disease cases occurred in the Group.

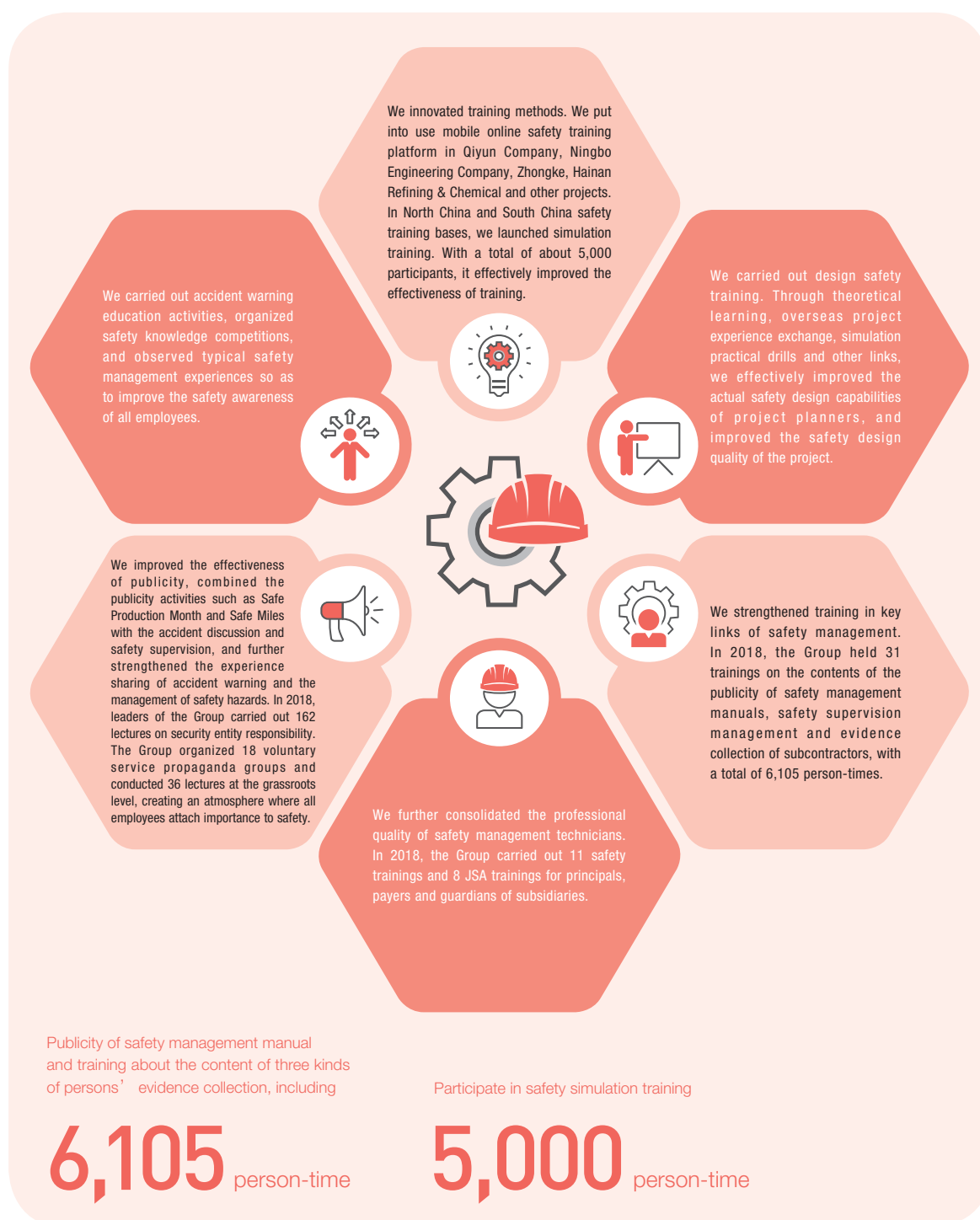
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In the reporting period, there was no occupational disease case in the Group.



## Safety training and propaganda

Aiming at the safety risks and hidden dangers in the process of project and engineering operation, the Group adopts the “online + offline” approach for the headquarters, subsidiaries and other groups. Through cases, simulation training, visual training and other multi-dimensional forms, the Group carries out safety training in an all-round way, further consolidates the “three foundations” of safety, enhances the safety awareness of all employees, and improves their safety skills.



### Case: Organized Sinopec Project Design Safety Training Class

In 2018, the Company Qingdao Safety Engineering Research Institute jointly organized four phases of "Sinopec Project Design Safety Training Class", which trained 243 engineering designers and design managers for refinery chemical engineering, petroleum engineering, pipeline storage and transportation companies, and large refining and oilfield companies, thus improving the designers' safety design capability and application of analytical methods, further implementing the concept of "safety comes from design" and promoting the high-quality development of HAZOP, SIL and LOPA. This training focused on the combination of theory and practice; while teaching laws and regulations, standard specifications, system regulations, as well as hazard analysis and risk assessment methods for process devices in their life cycles, it shared the experience of design safety management and implementation of two overseas refinery projects in Kuwait and Malaysia, and also divided trainees into several groups according to their specialties, and organized HAZOP analysis and SIL grading simulation with respect to typical cases of hydrogenator, rectifying column, LPG tank and crude oil tank based on the given

conditions. At last, each group reported the analysis results to the class, and the lecture provided comments and answered the questions. Through the on-site simulation exercise, the class assessed the trainees in mastering of training contents such as standard specifications, analytical methods and technical tools, and also strengthened their application of theoretical knowledge, which finally improved the training effect.



### Case: Sinopec Fourth Construction Co., Ltd. Deepened the Safe Production Month Activities

In June 2018, Sinopec Fourth Construction Co., Ltd. held a safety consultation day at Sinopec North China Safety Practice and Training Base, to urge all employees to keep in mind the concept of giving priority to life and

safe development. More than 100 employees further improved their theory and practice through thematic activities such as Safety practice competition and safety knowledge competition.





# Supply chain management

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Supplier management

Subcontractor management



# Supplier management

B5 General disclosure  
B5.2

The Group continued to strengthen supplier management, optimize supplier qualification review and performance dynamic evaluation mechanism, increase the penalties for breach of contract, promote the construction of market integrity system, and strive to construct the transparent materials supply ecology. As for on-site review and evaluation of suppliers, the Group further refined the evaluation contents of health and safety environment management, and included the qualifications of ISO14000 and ISO18000 into the bid evaluation standards of suppliers, to promote the suppliers to continuously enhance their awareness and capacity of safety and environmental protection.

In 2018, we released the operation manual for recorded suppliers through PPMS system and official document system, optimized their management process, and accelerated the use of such suppliers, to improve the efficiency of using suppliers in the resource pool. We also

established a supply resource management platform, which has begun to take shape, including 2,541 suppliers enjoying a service relationship with the Company, 653 E&E suppliers, 103 recorded suppliers and 198 overseas suppliers.

## Revising and improving the institutional system:

The Group issued the "Letter on Deepening the Central Sightseeing Feedback and Renovating and Further Strengthening the Material Purchase Management of Refining and Chemical Engineering Enterprises", comprehensively sorted out the management documents (institutions, and notices, etc.) of various engineering companies while referring to the regulations of the Group on material supply management system, analyzed the material supply management performance appraisal indexes of in-system, out-of-system and overseas projects ranking at the bottom, and then found the reasons and formulated the corrective measures; released general terms and conditions for international procurement and optimized the procurement operation process, and built the SEG international procurement standard and system, thus improving the company's international procurement level;

## Strengthening the responsibility management of key projects:

The Group, while focusing on key projects, made full use of the MSP platform, coordinated matters related to manufacturing quality and progress in the material supply process, and further enhanced the management functions of the MSP platform;

## Promoting application of the MSP platform:

The contractors, suppliers (manufacturers), supervisors and owner of the project could realize resource share and co-management with the visualized material manufacturing quality monitoring platform (MSP), thus realizing the whole process management of the material manufacturing process, and traceability of quality of engineering materials in the whole life cycle.

Establish service relationship  
suppliers

2,541

E&E suppliers

653

File suppliers

103

Overseas suppliers

198

## Subcontractor management

The Group implements an integrated management model for subcontractor management. In 2018, the Company continued to strengthen the management of subcontractors and urge them to perform their duties in aspects of subcontractor management system, subcontractor resource pool, subcontractor assessment and site management.



### Case: Building a skill assessment system for subcontractors' personnel

In 2018, the Company established a vocational skill assessment system and online examination platform for subcontractors' personnel. The online examination platform covers 19 majors in levels of junior/medium/high. Through adjusting the difficulty level of the quiz tank, the performance of the assessment system could be closer to the demand of the project site, and

ensure that the professional knowledge and work skills of subcontractors' personnel who have passed the assessment could meet the requirements of project construction, thus strengthening the control of the factors affecting quality and safety of the project from the source.







# Construction of high-quality projects

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Strict control of project quality

Promotion of technical innovation

Expansion of overseas business



## Strict control of project quality

B6 General disclosure  
B6.2, B6.4

The group has always regarded the construction of high-quality projects and guarantee of “stable and excellent” operation of the device as one of the key elements to show the Company’s core competitiveness. From design and procurement to construction and driving, the Group will, in all aspects of project construction, strictly observe the relevant laws and regulations on, technical standards for and regulatory requirements for the quality of the *Architecture Law of the People’s Republic of China*, *Construction Engineering Quality Management Rules* and the territory of operation such as *Road Construction Law of Kingdom of Saudi Arabia*, etc., and through regulating the organizational structure and responsibilities, establishing the project management system, perfecting the project management mechanism, optimizing project resource allocation and strengthening organizational guarantee, implement the monitoring of project process, build advanced project management system and improved project quality management system, in order to guarantee the delivery quality of each project in all aspects, establish a good brand image and market reputation of the Company, and constantly improve its competitiveness in the world.

In order to obtain the high recognizing of owner on quality, the Group carried out supervision & review and customer review activity actively on business, such as design, EPC and construction, etc., and it accepted customers’ supervision, further strengthened technical support and service on project site and improve customer’s satisfaction.

During the reporting period, the Company has successfully delivered 689 projects. 1 project constructed by the Company won the Gold Award of National Prime-Quality Projects, 3 projects won the National High Quality Project Silver Award, 24 projects won the provincial and ministerial high-quality engineering award and 10 projects won the provincial and ministerial excellent design awards. The Company had no major quality accidents, which effectively guaranteed the performance rate and the qualification rate of delivery.

**Further strengthening the system construction:** The Group revised and improved the *Measures for the Quality Management of SINOPEC Engineering (Group) Co., Ltd.*, and the *Measures for Administration of Quality Accidents of SINOPEC Engineering (Group) Co., Ltd.*, and improved the suitability and adequacy of the two institutional documents; developed the *Measures for Assessment Management of Skills of Subcontractors’ Personnel of SINOPEC Engineering (Group) Co., Ltd.*, and *Guiding Opinions on Quantitative Assessment and Evaluation of Subcontractors’ Personnel of SINOPEC Engineering (Group) Co., Ltd.*, and also guided all units to complete the assessment and quantitative evaluation of subcontractors’ personnel, to make the quality management always under control. The evaluation rules of the quality management award were also revised for accurate incentive according to the business characteristics of engineering companies, comprehensive engineering companies, construction companies and scientific research enterprises;

**Promoting the construction of quality standardization:** The Group developed the *List of General Quality Control Points for all Projects*, to standardize the key nodes including construction level, construction procedure, and construction process; it also developed the *List of Inspections on Partitioned Projects*, to further strengthen the management of operation and maintenance of the project quality management system, engineering entity quality control and traceability;

**Benchmarking international advanced management:** The Group benchmarked the philosophy of advanced project management of well-known engineering companies in Europe and America, released the *Management Manual for*

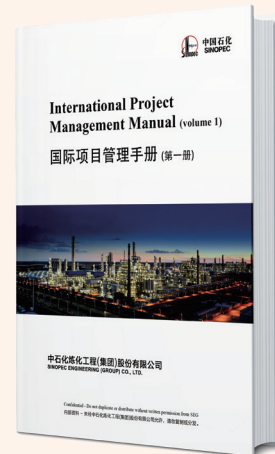
*International Projects*, and promoted the standardization, standardization and programming of project management of the Company, and comprehensively enhance the capability of project management and control and of construction;

**Solidly carrying out quality inspection work:** The Group actively implemented the quality inspection and testing actions, establish a reporting mechanism of quality control, carry out quality inspection on all processes, all used materials, components and parts and finished products, etc. through daily inspection, independent inspection and cross-project inspection and other various modes, so as to achieve early detection, early treatment and early solution with respect to the quality problems. In 2018, it conducted quality inspection on 15 key projects including Filling Station Technical Transformation Project of Beijing Petroleum Company, and Chengyan Building Reconstruction Project; aiming at major quality problems found in the inspection, the Group provided the problem feedback for the relevant units in forms of conference notification and quality briefing, conducted tracking supervision on the rectification, and urged the rectification of the relevant problems;

**Conducting quality month propaganda activities:** The Group organized employees to participate in the quality management knowledge answering activities, and conducted the full-coverage propaganda and training of the *Management Measures for Design Safety of Sinopec Construction Projects*; various engineering companies have successively carried out design quality return visits, and listened to the owner’s evaluation on operation of the device, so as to further improve the design quality.

Case: The Group, cooperated with Enstoa, developed the *Management Manual for International Projects*, to further improve the project management capability

In order to become a world class EPCC company, the Group collaborated actively with Enstoa and successfully developed the *Management Manual for International Projects*, which, focusing on the standardization, normalization and implementation of project management competence, contains advanced practical experience of many industry organizations around the world, including Enstoa, Construction Industry Association, Project Management Institute and American Association of Cost Engineers. The implementation of the *Management Manual for International Projects* in the Group could further improve the Company's project management and control capability and reduce risks, thus laying a solid foundation for building quality projects at home and abroad, and creating great significance for exploring the international market.



# Promotion of technical innovation

B6 General disclosure

Innovation is the source for the survival and development of an enterprise. In 2018, the Group, while closely following the requirements of the development of the times, adhering to the market-oriented direction and in combination with the development needs of the state and the industry, continued to promote scientific and technological innovation, and achieved remarkable results, which has made positive contributions to the sustainable development of the Company and the industry.

## Promoting scientific and technological innovation

The Group will follow the requirements of the *Guiding Opinions on Scientific and Technological Work*, the *Development Plan for the "13th Five-year Plan" for Technical Work* (2016 to 2020) and other documents, and according to its overall strategic arrangement of "energy-oriented, innovation driven, Global Development, value focusing", continue to adjust and deepen the goals, tasks and measures of its technical work, actively support major national science and technology projects, assume key scientific and technological projects entrusted by Sinopec Group, give full play to its professional advantages, study specialization topics, and promote the development of the industry. It will continue to strengthen cooperation with Sinopec Research Institute, and actively promote the transformation and industrialization of scientific and technological achievements.

In 2018, the Company invested 1.676 billion RMB in technical research and development. During the reporting period, a total of 48 (times) achievements won various awards such as scientific and technological progress award of the Group, including 2 First Prizes of the State Scientific and Technological Progress, 1 Second Prize of the State Scientific and Technological Progress, and 6 First Prizes of the Sinopec Scientific and Technological Progress.

The company invested scientific research and development fund in 2018

1.676 billion RMB

It has obtained all kinds of awards of the group company's scientific development and research in the reporting period:

totally 48 items (times)

### 2 First Prizes of the State Scientific and Technological Progress



- Development and Application of Complete Sets of Large-Scale Modern Coal-To-Oil/Olefin Coal Chemical Technologies
- High-Efficiency Methanol to Olefin Whole Process Technology

### 1 Second Prize of the State Scientific and Technological Progress



- Deep Delayed Coking Technology for Improving Light Oil Yield

### 6 First Prizes of the Sinopec Scientific and Technological Progress



- Technological Development and Industrial Test of Yuanba Natural Gas Purification Project
- Development and Industrial Application of 200,000 Tons/Year Gas Thermal Cracking Furnace
- Development and Industrial Application of the Technology for Producing High-quality Needle Coke with Inferior Oil Slurry
- Domestic Research and Development of Large-Scale Polyethylene Continuous Mixing and Extrusion Granulation Unit
- Chemical Plant Exhaust Gas Comprehensive Treatment Technology
- Integration Innovation of Key Technologies for Construction of Large Underground Water Seal Cave Oil Depot



Strengthening the protection of intellectual property

B6 General disclosure  
B6.3

In order to protect the Company’s legal intellectual property rights, the Company has successively issued the Administrative Measures for the Patent of Sinopec Engineering (Group) Co., Ltd., the Administrative Measures for the Protection of Intellectual Property Rights of Sinopec Engineering (Group) Co., Ltd., the Administrative Measures for Proprietary Technologies of Sinopec Engineering (Group) Co., Ltd., the Administrative Measures for the Division of Level and Compensation Fee of Confidential Technical Staff in Sinopec Engineering (Group) Co., Ltd., the Administrative Measures for the Technical Confidentiality Agreement of Sinopec Engineering (Group) Co., Ltd. and other systems for the purpose of protecting the Company’s patents and proprietary technologies, enhancing the confidentiality consciousness of technical staff, and guaranteeing the Company’s intellectual property rights free from infringement.

In 2018, while strictly implementing the requirements of “integrated management and control, and key technology protection”, further strengthened the protection and management of intellectual property rights and improved the pertinence and validity of the protection of intellectual property rights from the aspects of technical isolation, cross-contamination, trace management, and ideological understanding.

During the reporting period, the Company completed the application for 532 new patents, including 332 authorized patents. The Group has a total of 2,801 valid patents (including 42.1% of invention patents) in China. In the year, the Company completed 115 technical standards, and 45 of which were released.

New patent application  
in the reporting period

532<sub>pcs</sub>

Authorized patents in the  
reporting period

332<sub>pcs</sub>

The group owns  
Chinese patents

2,801<sub>pcs</sub>

The invention patents  
account for the Chinese  
patents owned  
by the Group:

42.1 %

All kinds of technical standards  
completed in the whole year

115<sub>pcs</sub>

All kinds of technical standards  
issued in the whole year

45<sub>pcs</sub>





## Expansion of overseas business

In the context of building “the Belt and Road”, the Company continuously promoted its international strategy to expand international market by making advantage of its professional strengths, and worked together with international partners to achieve global sustainable development and enhance its brand influence around the globe.

In positive response to the national “Belt and Road” strategy, the Group focused on development of markets along the “Belt and Road” to promote its advanced engineering technologies and management concepts by virtue of its collaborative advantages in industry chain, technology chain and business chain in order to provide tis clients with an “integrated one-stop solution” for technical consultancy, feasibility study, financing arrangement and planning implementation. This would also improve economic development and comprehensive strengths of countries along the “Belt and Road”, and enhance the Company’s international brand and social reputation.

During the reporting period, the Company entered into 33 contracts for international business cooperation in the Middle East, Central Asia, Southern Asia and Southeastern Asia regions, with the total contract amount of 750 million USD, involving 9 countries and regions along the “Belt and Road” such as Iran, Saudi Arabia, Kuwait, Russia, Brunei, Malaysia, Thailand, Singapore and Nigeria.

In the reporting period, new international business contracts signed in the countries and regions along the Belt and Road

33

In the reporting period, the total amount of the new business contracts signed in the countries and regions along the Belt and Road

750 million USD

Total countries and regions along the Belt and Road involved in the project

9



- ▲ On November 28, 2018, under joint witness of Chairman Xi Jinping and Spanish Prime Minister Sanchez, Yu Baocai, Deputy General Manager of Sinopec and President of Refining & Chemical Engineering Group, signed the Joint Bid Agreement on the Azul Oil Refining and Chemical Engineering Integration Project in Kuwait, with Juan, Vice President and CEO of TR, at the Prime Minister’s Office



- ▲ The company signed CO<sub>2</sub> conversion utilization agreement with NCF ( New CO<sub>2</sub> Fuels )

# 07

## Anti-corruption

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# Anti-corruption

B7 General disclosure  
B7.1, B7.2

In 2018, the Company, while strictly abiding by the laws and regulations on prevention of bribery, extortion, fraud and money laundering such as the *Criminal Law of the People's Republic of China*, the *Law of the People's Republic of China for Countering Unfair Competition*, the *Company Law of the People's Republic of China*, and the *Interim Provisions on Prohibition of Commercial Bribery* issued by the State Administration of Industry and Commerce, continued to thoroughly implement the relevant anti-corruption requirements, conscientiously assume the anti-corruption responsibilities, deepen institutional construction, upgrading risk prevention and control measures, and carry out multi-level anti-corruption education through improving the supervision system, thus making great achievements in anti-corruption. During the reporting period, no cases of bribery, extortion, fraud and money laundering occurred in the Group.

**Establishing a Supervision Committee of the Refining and Chemical Engineering Group:** In 2018, the Company further improved the working mechanism of the Supervision Committee, and realized full coverage of supervision on the performance of obligations and rights of all organizations and employees, thus effectively forming the joint efforts of "big supervision";

**Strengthening construction of the anti-corruption system:** The Company developed and issued "Key Tasks of Party Clean Construction and Anti-Corruption of the Refining and Chemical Engineering Group in 2018", which divided the annual objective into 39 specific tasks, and clarified the responsible departments and completion time; the Company paid close attention to the implementation of these tasks. It also drafted the *Implementation Measures for the Inspection Work of Party Committee of the Refining and Chemical Engineering Group (Draft for Comment)*, which proposed the proposal for contents about the inspection leading group, institution setting, staffing, target and task, scope and content, methods and procedures, feedback and rectification, thus providing institutional guarantee for further inspection conducted by the party committee;

**Making a plan to implement the supervision work:** The Company held quarterly meetings of all members according to the working rules of the supervisory committee, formulated the annual supervision plan and conscientiously implemented it; in 2018, the Company conducted

joint inspection and supervision on Qinghai Damei Project, overseas establishments in Saudi Arabia and Kazakhstan, and the projects under execution; it also proposed rectification opinions and suggestions against the found problems, and supervised the implementation of rectification, to effectively standardize the project management;

**Upgrading prevention and control of integrity risks:** The Company developed the functions of prevention and control of integrity risks in the ERP business process, embedded the ERP of integrity risk list to realize the organic integration of the Company's internal control management, audit supervision and business integrity risk prevention and control with the construction of ERP, and strengthened the prevention and control of integrity risks in the managerial process;

**Carrying out integrity education activities:** The Company constantly deepened the education in the theme of integrity, built a defence line of mentality, and promoted the change from "I am asked to be clean" to "I want to clean". In 2018, the Company carried out the activity of helping to reach integrity by families, and issued 3,045 promotion cards, to improve the family-style development. It commended 12 progressive individuals, to let them play a leading and demonstration role as positive examples. In the meantime, the Company would implement reminding of integrity in important festivals and important processes. During the reporting period, a total of 41,905 persons/times accepted the anti-corruption education.

Outreach cards issued for family to help integrity

3,045

In 2018, incorruptible advanced individuals were awarded

12

In the reporting period, totally educated anti-corruption

41,905 person-time

## Case: Exchange of Experience on Integrity Risk Prevention and Control at the Construction Site of Zhong'an United Coal Chemical Project

In 2018, the Company held a Symposium on Integrity Risk Prevention and Control and the Forum of Secretary of the Disciplinary Committee and Director of the Supervisory Committee at the Construction Site of Zhong'an United Coal Chemical Project, which exchanged and discussed the effective measures and experience of integrity risk prevention and control and "big supervision".





# Community investment

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Targeted poverty alleviation

Volunteer service

Overseas community participation



## Targeted poverty alleviation

B8 General disclosure  
B8.1, B8.2

With “sourcing from the society and contributing to the society” as the starting point and foothold, the Company established a charity mechanism integrating helping the poor, donation to schools, and earthquake relief; enthusiastically served the community; carried out charitable activities in terms of poverty relief, and donation to schools; and actively organized employees to participate in voluntary activities and public welfare actions. Meanwhile, the Company expanded the happy space for overseas communities by supporting the development of and providing services for overseas communities and initiating overseas donations for public interests, established a harmonious and win-win relationship with the society and achieved the unification of social benefits and economic benefits. During the reporting period, the Company accumulatively donated 500,000 RMB.

### Case: Helping Dongxiang County to overcome poverty

In 2018, the Company’s outstanding employee Jiao Jianguo, went to Dongxiang County, Linxia Hui Autonomous Prefecture, Gansu Province to carry out poverty alleviation work on behalf of the Group. He was responsible for the coordination and implementation of the related assistance projects, and made several achievements. In the local area, he assisted the Personnel Department of the Group in recruiting 38 college students in Dongxiang, to promote local employment. Relying on agricultural science and technology, the Group successfully planted buckwheat and sweet sorghum. The Group also provided assistance in construction of the 490 kW power station in Dashu Town in the form of “photovoltaic poverty alleviation”; and carried out the reconstruction and upgrading of

water supply project in Bulenggou watershed, which improved the local infrastructure. In the meantime, the Group constructed 799 warm sheds for 230 households for pre-poverty alleviation. In the aspect of education, the Group maintained teaching buildings, donated computers, distributed school uniforms, established scholarships, and improved local study conditions. In the aspect of agriculture, the Group purchased agricultural machinery and supported the “grain to feed” work of the county. It is also planned to further provide assistance for the local people in aspects of the training for skilled workers, supporting of education, expanding of animal husbandry market channels, and promoting of infrastructure construction.





## Volunteer service

The Company continued to advocate and promote the volunteer service. In 2018, the Group, through the Trade Union, Workers' Union Youth League Committee and Women's Organization, actively advocated and organized volunteer service activities, and provided caring services to socially disadvantaged groups and vulnerable groups in various forms.

### Case: Conducting learning-from-Leifeng volunteer service activities

On the afternoon of March 30, 2018, the Company's Communist Youth League committee organized a delegation of more than 20 young volunteers of the Headquarters to come to Anyuan Military Retreat Elderly University in Datun Community, to provide learning-from-Leifeng volunteer service in the theme of "Establishing new social morality with love"; they cared the old, dedicated their love and taught them to use WeChat functions. The young volunteers, with great enthusiasm and patience, told the old the basic functions of WeChat, answering their questions and carefully guiding them, and heading the old who love life to feel the zero-distance communication method of the information era. They introduced the voice chat, video chat, group chat, friend circle and other functions of WeChat, and gained unanimous praise from the old.

This activity inspired the youth employees of the Company to care for others and contribute to the society, and they expressed that they would actively promote the social civilization and new spirit, carry forward the spirit of "dedication, friendship, mutual assistance and progress", contribute their power of youth through tiny events, and make practical actions to pass on the spirit of Leifeng.



## Overseas community participation

As an international large-scale engineering enterprise, the Company also shouldered the mission of assuming international responsibilities while expanding overseas businesses. The Company attached great importance to the participation of overseas communities, continuously improved the overseas community participation mechanism and supporting policies, gave full play to its advantages in overseas operations, supported the development of overseas communities, participated in overseas charitable donations, actively established harmonious and win-win relationships with overseas communities, and promoted the comprehensive economic and social development of local communities.

In 2018, by promoting localized procurement, raising taxed payable, disseminating advanced management concepts and technologies, and carrying out professional skills training, the Company provided basic guarantees for the economic development of local communities, promoted local employment and won recognition and praise from local communities.

# Prospects

Another year has come, and it is the 70th anniversary of the founding of New China in 2019. It is also a crucial year for building a well-off society in an all-round way and achieving the goal of the first century. The Group will, under the new historical orientation and historical background, continue to firmly implement the new development concept of “innovation, coordination, green, openness, and sharing”, practice the benign interaction between enterprise development and fulfilling of social responsibility, deepen management, realize transitional innovation, and seek improvement in stability, to fully promote new development by new actions in the new era.

Devoting great efforts to business development and constantly creating value. We will continue to exert advantages in the brand influence and integration, and actively create an industrial ecosystem rooting in the soil of the development of petrochemical industry in China; while achieving the growth of corporate performance by promoting new technologies, we will also promote synergetic development in the industry, to create greater value for the society and environment, and grow with the care and support of all sectors of society.

Paying close attention to quality management, and promoting safe operation. We will always put “safe operation” at the forefront of enterprise development, strengthen the implementation of responsibilities, deepen the construction of safety management system, conduct dynamic risk management and control, strengthen subcontract management, continue to promote standardization, comprehensively grasp quality management, and build a new pattern of safety management during enterprise operation.

Strengthening energy conservation and emission reduction and promoting green development. We will adhere to the green development strategy, strengthen the management of energy conservation and emission reduction, actively develop the plan for reducing energy consumption and managing carbon emission, and strive to reduce the impact of the Company’s business development on the ecological environment, minimize the emission of waste water, waste gases and solid wastes, and achieve a harmonious and unified economic growth and environmental protection.

Adhering to the people-oriented principle and innovating talent development. We will continue to focus on employees’ occupational health, and improve health and safety management level from company development and industry requirements, reduce the probability of health and safety incidents, review and adjust internal management structure, balance the resources between R&D and other businesses, actively protect intellectual property rights, promote the application of intellectual property rights to our business, establish a platform for the growth of enterprises and employees, stimulate the value, and promote common development.

Making earnest efforts to public welfare, and sincerely making contributions to the society. We will continue to carry out charitable activities such as donation to schools and helping the poor. Standing at the height of national strategy we will bear in mind the mission of central enterprises, cooperate with all sectors of society, enhance communication and understanding, and always integrate social responsibility into sustainable development, and continue to enhance social responsibility consciousness, innovate social responsibility management, and deepen social responsibility practices through increasing development momentum by responsibilities and shouldering mission of sustainable development, so as to make contributions to create a harmonious society and build a beautiful homeland.

Great corporate value may promote development of the Company. In 2019, we will firmly establish and implement the corporate value of “creating an industry-leading and world-class company”, to enhance the core competitiveness of the project construction, strive to be the world’s leading petrochemical construction leader, and construct the first-class projects in China and the world; we will brave the wind and the waves, and will not change our mind at each intersection, bring the wisdom of all parties together, gather the full strength of all staff, deepen technological innovation, promote the harmonious and sustainable development of economy and the society, and create a long-term foundation.



# Annex

## ESG Index

Level	Content	Section
A1 Emissions	General disclosure (a) Policies; and (b) information on compliance with relevant laws and regulations with significant impacts on the issuer, with respect to the emission of waste gas and greenhouse gas, pollution discharged into water and land, generation of hazardous and non-hazardous wastes.	P15
	A1.1 Types of emissions and relevant emission data.	P16
	A1.2 Total emissions (ton) and density (if applicable) (calculated on basis of each generation unit or each facility) of greenhouse gases.	P16
	A1.3 Total amount (ton) and density (if applicable) (calculated on basis of each generation unit, each facility, each official employee) of hazardous wastes.	P16
	A1.4 Total amount (ton) and density (if applicable) (calculated on basis of each generation unit, each facility, each official employee) of non-hazardous wastes.	P16
	A1.5 Description of measures for emission reduction and corresponding results.	P15
	A1.6 Description of measures of disposing of hazardous and non-hazardous wastes and emission reduction and corresponding results.	P15
A2 Use of resources	General disclosure Policies of effective use of resources (including energy, water and other raw materials). Note: resources can be used for production, storage, transportation, buildings and electronic equipment.	P17
	A2.1 Total consumption (in 1,000 kwh) and density (calculated on basis of each generation unit or each facility) of direct and/or indirect energy by type (e.g. electricity, gas or oil).	P18
	A2.2 Total water consumption and density (calculated on basis of each generation unit or each facility).	P18
	A2.3 Description of benefit plans for use of energy, and corresponding results.	P17
	A2.4 Description of any problem in gaining applicable water sources, benefit plans for improvement of water use and corresponding results.	P17-P18
	A2.5 Total amount (ton) of packaging materials used for finished goods and amount per generation unit (if applicable).	Not Applicable
A3 Environment and natural resources	General disclosure Policies on reduction of significant impacts caused by the issuer on the environment and natural resources.	P19
	A3.1 Description of significant impacts of business activities on the environment and natural resources, and actions that have been taken on control of relevant impacts.	P19
B1 Employment	General disclosure (a) Policies; and (b) information on compliance of relevant laws and regulations with significant impacts on the issuer, with respect to remuneration and removal, recruitment and promotion, working hours, vacations, fair opportunities, diversifications, anti-discrimination and other treatment and benefits.	P21
	B1.1 Total number of employees by sex, type of employment, age and region.	P21
	B1.2 Loss rates of employees by sex, age and region.	Recommended disclosure, to be disclosed in the future
B2 Health and safety	General disclosure (a) Policies; and (b) Information on compliance of relevant laws and regulations with significant impacts on the issuer, with respect to provision of safe working environment and guarantee of protection of employees from occupational hazard.	P27
	B2.1 Number and ratio of deaths due to work.	Recommended disclosure, to be disclosed in the future
	B2.2 Number of working days lost due to work injury.	Recommended disclosure, to be disclosed in the future
	B2.3 Description of occupational health and safety measures adopted, and corresponding implementation and inspection methods.	P27-P31

B3 Development and training	General disclosure	
	Policies concerning improvement of knowledge and skills of employees for performance of jobs and responsibilities.	P21, P24
	Description of training activities.	
	B3.1 Proportion of employees to be trained by sex and type (e.g. senior management, middle management).	P24
B4 Labour standard	B3.2 Average hours for completion of training for each employee by sex and type.	Recommended disclosure, to be disclosed in the future
	General disclosure	
	(a) Policies; and (b) information on compliance of relevant laws and regulations with significant impacts on the issuer, with respect to prevention of child labor and forced labor.	P21
	B4.1 Description of measures for review of recruitment practices to prevent child and forced labour.	P22
B5 Supply chain management	B4.2 Description of steps taken to eliminate any breach of regulation discovered.	Not Applicable
	General disclosure	P33
	Policies on environment and social risks of managing supply chains.	
	B5.1 Number of suppliers by region.	Recommended disclosure, to be disclosed in the future
B6 Product responsibility	B5.2 Description of customary practices on employment of suppliers, number of suppliers subject to practices and implementation and inspection methods for such practices.	P33
	General disclosure	
	(a) Policies; and (b) information on compliance of relevant laws and regulations with significant impacts on the issuer, with respect to health and safety, advertisement, labeling and privacy of products and services provided and remedial measures.	P9, P27, P37
	B6.1 Percentage of products to be recycled due to safety and health matters in all products that have been sold or delivered.	Not Applicable
	B6.2 Number of complaints on products and services and corresponding responses.	P37
	B6.3 Description of customary practices on safeguarding and protection intellectual property rights.	P40
	B6.4 Description of quality inspection procedures and product recycling process.	P37
B7 Anti-corruption	B6.5 Description of protection of consumers' information and privacy policies, and corresponding implementation and inspection methods.	Recommended disclosure, to be disclosed in the future
	General disclosure	
	(a) Policies; and (b) information on compliance of relevant laws and regulations with significant impacts on the issuer, with respect to prevention of bribery, extortion, fraud and money laundering.	P43
	B7.1 Number of corruption lawsuit cases against the issuer or its employees during the reporting period that have been prosecuted and closed and the lawsuit results.	P43
B8 Community investment	B7.2 Description of preventive measures and reporting procedures, and corresponding implementation and inspection methods.	P43
	General disclosure	
	Policies on understanding the demands of the community by community participation and ensuring the benefits of the community to be considered in the business activities.	P45-P46
	B8.1 Category of devotion and contribution (e.g. education, environmental matters, labour demands, health, culture and sports).	P45-P46
	B8.2 Resources used for category of devotion (e.g. money or time).	P45

# Readers' Feedback Form

Thank you for reading 2018 Environmental, Social and Governance Report of the Group. In order to strengthen communication with you and other stakeholders and continuously improve the Group's performance of environmental and social responsibilities and preparation for the social responsibility report, we would like to hear your valuable opinions and suggestions. We sincerely look forward to your feedback in any of the following methods:

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Zip code: 100029

Contact person: Administrative Department

Please offer your specific feedback:

1. Your overall assessment to the Report is:

☐ Excellent ☐ Good ☐ Fair ☐ Poor

2. How do you think of the clearness, accuracy and completeness of the information and data disclosed in the Report?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

3. How do you think of the comprehensiveness of the economic responsibilities to be undertaken by the Group as reflected in the Report?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

4. How do you think of the comprehensiveness of the environment responsibilities to be undertaken by the Group as reflected in the Report?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

5. How do you think of the comprehensiveness of the social responsibilities to be undertaken by the Group as reflected in the Report?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

6. Do you think if the design and layout of the Report are convenient for reading?

☐ Excellent ☐ Good ☐ Fair ☐ Poor

7. What do you think in the Report needs revision most?

☐ Governance ☐ Safety ☐ Service ☐ Supply Chain ☐ Employees ☐ Environment ☐ Society

8. The contents not disclosed in the Report that you hope to get to know are:

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9. Your opinions and suggestions for the social responsibilities of the Group and the preparation of the report:

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This report is made of environmental paper