



CHINAGAS  
中國燃氣



2016/17  
Sustainability Report



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# About this Report

## Purpose of the report

This report is the first sustainability report issued by China Gas Holdings Limited (the "Company", together with its subsidiaries, the "Group" or "China Gas"). This report discloses the initiatives and performance of the Group regarding the subjects of sustainable development for the previous year in a transparent and open manner. It also demonstrates the strategies for and commitments to its achievement of sustainable development, so as to improve the confidence in and understanding of the Group among its stakeholders (or shareholders or equity holders).

For China Gas, this report does not only review the corporate performance, but also acts as the tool to propel management reforms. As such, the Group has engaged Carbon Care Asia Limited ("Carbon Care Asia"), an independent and professional consultant, to prepare this report. During the preparation of this report, Carbon Care Asia has assisted the Group in evaluating the Group's performance of environmental management and social responsibility and identifying key sustainability issues to which the Group should pay utmost attention so as to facilitate the Group to improve and enhance performance continuously.

This report also serves as a platform for ongoing communication through which China Gas hopes to strengthen its communication with its stakeholders. This report shows the present situations and future objectives of the Group and discloses not only the Group's financial performance, but also the Group's non-financial performance and overall development strategies. The Group expects stakeholders to give their feedback on the Group's information disclosure, and the Group promises to respond to their opinions in a timely manner so that this report can work as a channel for efficient exchange of information.

## Reporting year

All information contained herein reflects the performance of China Gas on environmental management and corporate social responsibility from 1 April 2016 to 31 March 2017. In future, the Group will publish the sustainability report on a regular basis each year, which can be accessed by the public, to continuously enhance the transparency of information disclosure.

## Scope of the report

China Gas is primarily engaged in the investment, construction and operation of city gas pipeline infrastructure, gas terminals, storage and transportation facilities, and gas logistics systems, transmission of natural gas and liquefied petroleum gas ("LPG") to residential, industrial and commercial users, construction and operation of compressed natural gas/liquefied natural gas refilling stations as well as development and application of technologies related to natural gas and LPG in China. This report covers important areas related to above businesses. The Group also disclosed key performance indicators as far as possible in the report with explanations to establish evaluation basis for comparison. For the business development and financial performance of the Company, please refer to the chapter "Deliver Sustainable Values" and "2016/17 Annual Report".

## Reporting guidelines

This report is prepared in accordance with the Environmental, Social and Governance Reporting Guide (the "ESG Guide") issued by The Stock Exchange of Hong Kong Limited (the "Stock Exchange"), and with reference to the Chinese CSR Report Preparation Guide (CASS-CSR3.0) of Chinese Academy of Social Sciences and the G4 Sustainability Reporting Guidelines ("G4") of the Global Reporting Initiative ("GRI"). With this move, the Group hopes to cover material issues in a more comprehensive manner, and to demonstrate the Group's determination in adopting the best international practices. A complete index is set out in the last chapter of this report for reference.

\* For identification purpose only



## About this Report

### Reporting principles

The Stock Exchange proposed four reporting principles in the Guide, including materiality, quantitative, balance and consistency, as the preparation basis of the sustainability report. During preparation of this report, China Gas applied these reporting principles. The table below presents the Group's understanding about and responses to these reporting principles.

Reporting principles	Meaning	Response from China Gas
Materiality	The report contains environmental and social topics which are material to stakeholders.	The report has paid special emphasis to the most concerned topics relating to core businesses and the stakeholders.
Quantitative	The report should disclose key performance indicators in ways that can be measured.	The Group strived to present quantitative information and provide explanation if permitted under the circumstances.
Balance	The report should present the performance of the Group in an unbiased manner.	The report identified and described the achievements made and challenges faced by the Group.
Consistency	The report should use consistent statistical and disclosure methods so that meaningful comparison can be made in future.	No comparison was made to its data as this is the first sustainability report presented by the Group. However, the Group will continue to use the existing statistical and disclosure methods in future so that stakeholders can make comparison on the performances of the Group year on year.

### Information collection method

Information contained herein is collected from the documents and statistics provided by the functional departments of the Group, also being the summary of the monitoring, management and operational information rendered by the relevant departments and subsidiaries according to the relevant system of the Group. The Group has established an internal regulatory mechanism and a review process to ensure that such information is as accurate and reliable as possible. The reporting content has also been reviewed by the senior management of the Group, and considered and approved by the board of directors of the Company (the "Board").

### How to access

This report is available in both English and Chinese electronic versions and has been uploaded onto the websites of the Hong Kong Exchanges and Clearing Limited ([www.hkexnews.hk](http://www.hkexnews.hk)) and the Company ([www.chinagasholdings.com.hk](http://www.chinagasholdings.com.hk)). If there is any inconsistency or discrepancy between the Chinese and English versions, the Chinese version shall prevail.

### Feedback

Our continuous improvement relies on your valuable feedback on both the content and the form of this report. If you have any questions or comments, please send us your views via [investor@chinagasholdings.com.hk](mailto:investor@chinagasholdings.com.hk).



## Message from the Chairman

I am pleased to present China Gas's first sustainability report, which represents the Group's new milestone in sustainable development.

At the Sustainable Development Summit held at the headquarters of the United Nations in 2015, all United Nations members formally adopted 17 sustainability development goals, with the aim of addressing global economic, social and environmental challenges. Enterprises may play an important role in achieving those goals. The business of natural gas industry is closely related to many objectives for sustainable development. On one hand, natural gas industry not only provides efficient clean energy for social and economic development, but also brings about employment opportunities, alleviates atmospheric pollution, delivers sustainable development for economy and realizes the development of cutting-edge technologies and products. On the other hand, it faces various challenges, including climate changes and the impact of operations on the environment and the community. The Group strives to make a contribution to the environment and the society while minimizing the negative impacts of its operations.

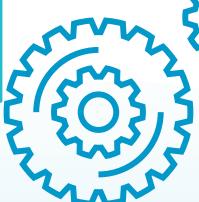
We provide relatively low-carbon and low-polluting energy sources and services such as natural gas and LPG for customers to reduce air pollutant emissions. We also actively participate in alleviating air pollution and mitigating climate changes by responding to the nation's low-carbon development goal of "coal-to-gas conversion" through our core businesses. During the 13th Five-Year Plan period, we will promote the construction of multi-energy integrated demonstration projects that can generate synergy with renewable energy, and further develop towards an integrated lower-carbon energy service provider.

Employees are the Group's most valuable assets. We attach importance to the well-being of our staff by striving to ensure a healthy and safe working environment and provide reasonable remuneration, desirable welfare and development opportunities for our employees, allowing them to grow with the Group. As a forward-looking enterprise, we understand the importance of recruiting young talents for future development. Therefore, we cooperated with universities and set up China Gas Institute of Technology, with a commitment to cultivating technical and managerial professionals and thus facilitating the sustainable development of the Group.

Community investment is one of our core values. We have established China Gas Charity Foundation Limited ("China Gas Charity Foundation"), "Red Hat Community Service Team" and "Blue Flame Voluntary Service Team" to organise various public welfare activities to support the sound development of those communities in which our business operates in accordance with their respective conditions.

Looking ahead, we will continue to accomplish the vision of "Converging in Harmony and Benefiting the Society", by supplying "smart" energy for the society and the public, ensuring the "green" development of national economy and promoting the sustainable development of environment, society and economy.

Mr. ZHOU Si  
*Chairman of the Board*



## About China Gas

### Major products and services

China Gas has been developing city gas business since 2002, and is primarily engaged in the investment, construction and operation of city gas pipeline infrastructure gas terminals, storage and transportation facilities, and gas logistics systems, transmission of natural gas and LPG to residential, industrial and commercial users, construction and operation of compressed natural gas/liquefied natural gas refilling stations as well as development and application of technologies related to natural gas and LPG in China. China Gas has now evolved into one of China's largest cross-regional energy service providers.

During the reporting year, the Group acquired 25 additional city pipeline gas projects. As of 31 March 2017, the Group had a total of 330 piped gas projects with concession rights in 25 provinces, municipalities and autonomous regions, 14 long-distance natural gas pipeline projects, 580 compressed natural gas/liquefied natural gas refilling stations for vehicles, one coalbed methane development project, and 92 LPG distribution projects.

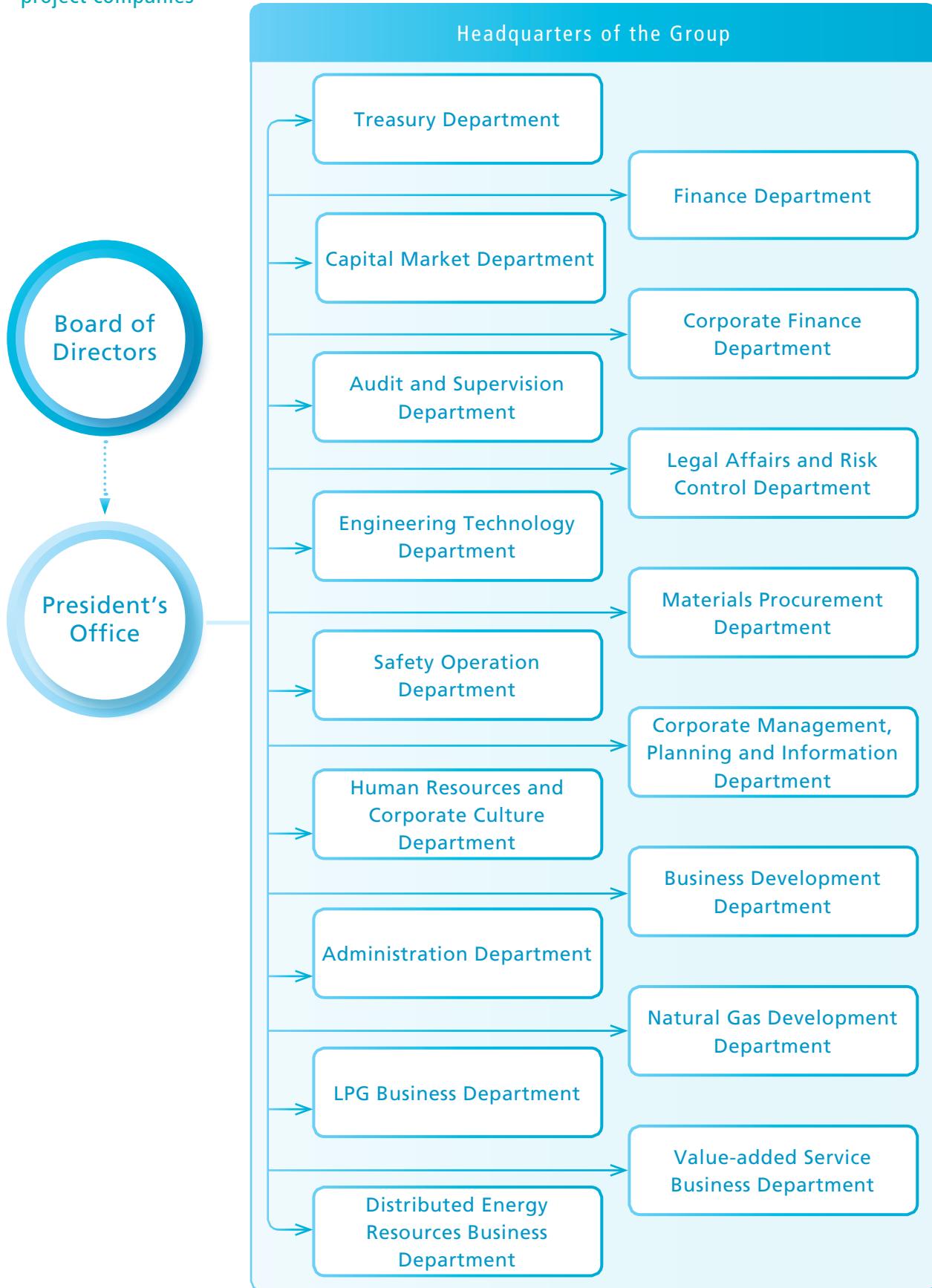
### Organization structure

To realize an integrated management system, the Group has established a three-tier organization structure consisting of headquarters, regional management centres and project companies. Within the system, "headquarters plays a strategic leading role, regional management centres undertake management task, and project companies focus on operations".

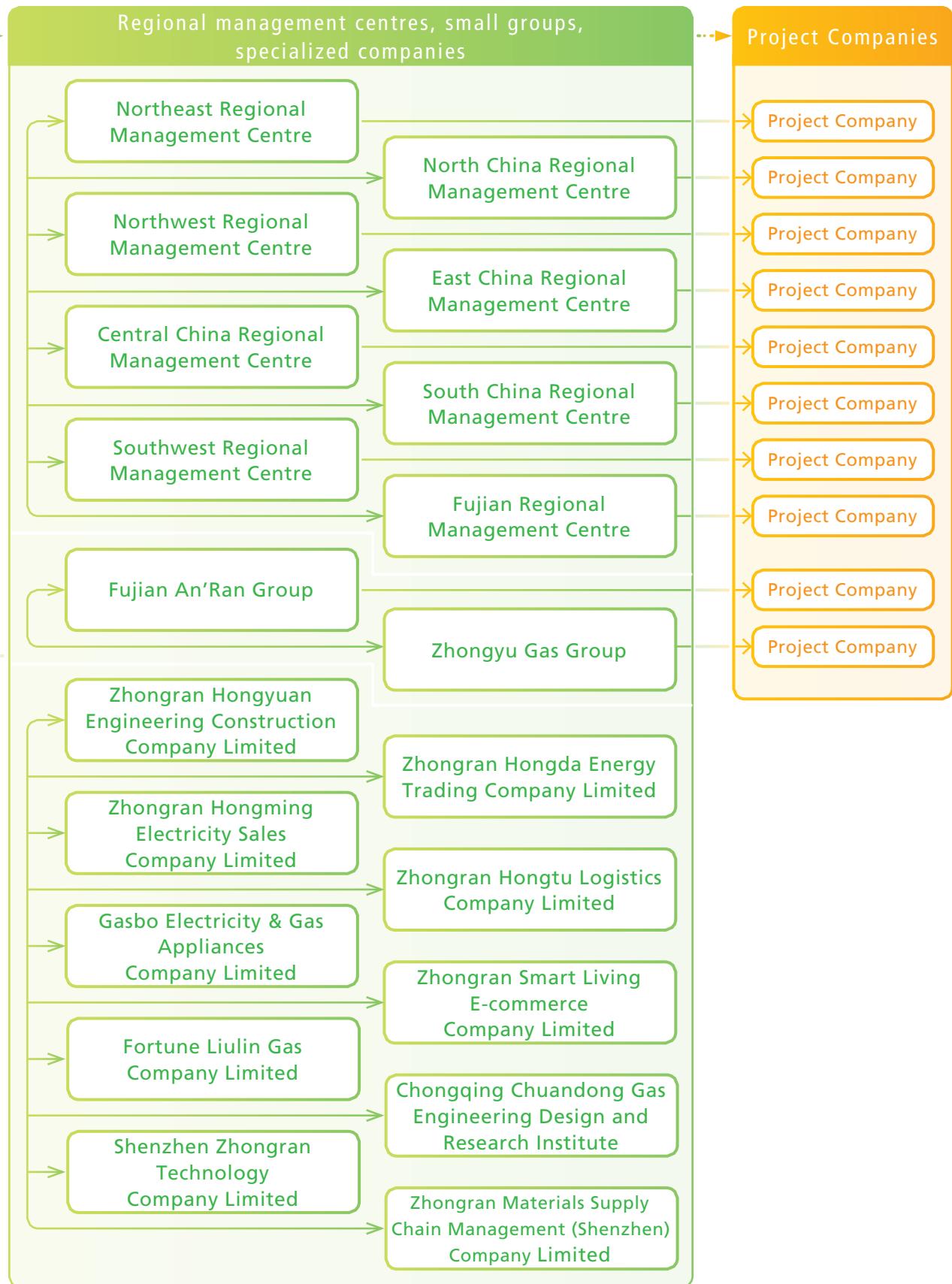


## About China Gas

Three-tier organisation chart of the Group's headquarters, regional management centres and project companies



## About China Gas



## About China Gas

### Operational locations

#### 1 Hebei

Cangzhou Development Zone, Nanpixian, Qinghexian, Wangdu city, Tangshan Nampo, Letingxian, Xinle, Gaocheng, Pingshanxian, Fengnan District of Tangshan, Neiqiuxian, Bohai New Zone, Cangzhou High-tech Zone, Tang County, Handan Jinan New Zone, Luquan, Quyang, Raoyang County, Botou New Zone, Laishui County, Dingzhou, Ding Xing County, Yutian County, Changli County, Weixian County, Xiahuayuan District, Chengan County, Wuqiao County, Ningjin County, Linzhang County, Zaoqiang County, Longyao County, Xingtang County, Gucheng County, Nangong City, Jize County, Xinhe County, Kangbao County, Zan Huang County, Huanghua pipeline, Cangzhou Zhongyou pipeline

#### 2 Inner Mongolia Autonomous Region

Hohhot, Wuzhen Banner, Baotou, Helingeer County, Tuoketuo County, Tuzuo Banner, Wuchuan County, Alashangmeng, Alashangmeng Wusitai Industrial Zone, Zuo Banner Tenggeli Industrial Zone, Wuhai, Wutelaqian Banner, Liangcheng County, Jinshan Industrial Park, Chang Meng pipeline, Wushen Banner pipeline

#### 3 Gansu

Lingtai County, Huating County, Jingning County, Chongxin County, Huachi County, Heshui County

#### 4 Ningxia Hui Autonomous Region

Zhongwei, Guyuan

#### 5 Shaanxi

Baoji, Qishanxian, Yulin, Linyouxian, Shangnan County

#### 6 Hubei

Yichang, Xiaogan, Hanchuan, Yingcheng, Yunmeng, Suizhou, Tianmen, Dangyang, Wuhan Qingshan, Wuhan Jiangnan, Laohekou, Danjiangkou, Yuanan, Dawu County, Run County, Wuxuetian Industrial Zone, Shiyan Wudangshan Zone, Fang County, Donghu High-tech Zone, Jianli County, Honghu City, Songzi City, Xinzhou district in Wuhan, Wuxue City, Yingshan County, Tuanfeng County, Longganhu district in Huangmei County, Huanggang City, Xishui Country, Meichuan Town in Wuxue City, Huangmei County, Shiyan City, Zigu County, Huangshi Port Industrial Park, Xiaogan pipeline, Dangyang pipeline, Huanggang-Daye pipeline

#### 7 Chongqing

Yubei, Chongqing pipeline

#### 8 Hunan

Yiyang, Youxian, Zhangjiajie, Yiyang Datonghu, Yiyang City New Zone

#### 9 Guangxi Zhuang Autonomous Region

Yulin, Qinzhou, Liuzhou, Fangchenggang, Nanning ASEAN Development Zone, Laibin, Baise, Bobai, Nanning, Chongzuo, Guiping, Beihai, Luchuan, Tiandeng County, Daha County, Hechi, Tianlin County, Guangxi Provincial Natural Gas Pipeline

#### 10 Heilongjiang

Harbin, Jiamusi, Shuangcheng, Mudanjiang, Jiagedaqi, Huachuan County, Tangyuan County, Huanan County, Suibin, Tongjiang, Mudanjiang Development Zone, Nongkenbaowanling, Raohe County, Qitaihe Jinsha New Zone, Mu Lan County, Tieli Chengguan, Fuyu County, Boli County, Luobei County, Yichun City Xingding District, Ji Xi, Lingdong district in Shuangyashan, Hebe City, Nongken Hongxinglong district, Wudalianchi City, Xunkel County, Qing'an County

#### 11 Liaoning

Fushun, Jinzhou Economic Hi-Tech Development Zone, Shenyang Sujiatun, Dailian Jinzhou Development Zone, LiaoYang, Gaizhou, Zhuanghe, Zhuanghe Industrial Park, Pulandian, Liaoyang Economic Zone, Liaoyang Taizi River, Xinbin County, Jinzhou Longxiwan New Zone, Qingyuan County, Dashiqiao, Jianping County, Fushun County, Yixian Qilihe, Changhai County, Jinzhou Dayou Economic Area, Yingkou Bohai Tech City, Jinzhou City, Shenyang City, Liaoyang pipeline

#### 12 Xinjiang Uygur Autonomous Region

Horgos Economic Development Zone, Ho City Economic Development Zone

#### 13 Tianjin

Jinghai Economic Development Zone, Ziye Industrial Zone, Baodi district in Tianjin, Tianjin pipeline

#### 14 Shandong

Dezhou, Qingdao, Leling, Qufu, Sishui, Qufu New Zone, Weifang Binhai Economic Development Zone, Liaocheng, Dezhou Tianqu Industrial Zone, Linyi, Linyi Economic Zone, Linshu County, Zhangqiu City, Rongcheng City, Haiyang, Wendeng, Rushan City, Weihai City, Shandong Provincial Natural Gas Pipeline

#### 15 Henan

Xinyang, Jiaozuo City, Qinyang City, Wuzhi County, Xiuwu County, Luohe City 7 Projects, Xiping County, Jiyuan City, Sanmenxia City, Shanxian County, Sammenxia Industrial Park, Lingbao City, Yanshi City, Yongcheng City, Yongcheng Industrial Zone, Xinmi City, Huangchuan County, Guangshan County, Gushi County, Huiguo Town, Gongyi City

#### 16 Jiangsu

Pizhou, Yangzhong, Jiang Bei District, Nanjing, Pu Kou District, Nanjing, Jiawang District, Xuzhou, Xinyi, Xuzhou, Yangzhou City, Taixing East District, Lianyungang Haizhou Economic Development Zone, Nanjing Jingqiao, Donghai County, Pei County, Sihong County, Guannan County, Nanjing Chang Lu Industrial Park, Subei pipeline

#### 17 Anhui

Wuhu, Huainan, Shouxian, Suzhou, Wuhu, Nanlingxian, Huoshanxian, Fengtaixian, Wuwei, Qimen, Xiuning, Maoji Development Zone, Huoqu, Susong Linjiang Industrial Zone, Suzhou Si County, Suzhou Yongqiao Economic Zone, Wuhe County, Sixian, Susong City, Taihu County, Binhu New District of Hefei City



#### 18 Zhejiang

Xiaoshan district, Hangzhou, Taizhou, Jinhua, Hangzhou Jiangdong Development Zone, Daishan Economic Development Zone, Yueqing City

#### 19 Jiangxi

Nanchang Wanli, Xinfeng County, Lean City, Wuyuan County, Yihuang County, Xinfeng Industrial Park

#### 20 Fujian

30 cities/regions, Sanming City, Shaowu City, Wuping County, Taining County, Qingliu County, Quanzhou Guanqiao Industrial Zone

#### 21 Guangdong

Maoming, Conghua, Meizhou, Yunfu, Shanwei, Xinxing, Fengshun, Pingyuan, Dapu, Wuhua, Huazhou, Luhe, Mei County, Jieyang Industrial Park

#### 22 Shanxi

Shuozhou, Xiangning County in Kinfen City, Jing-Shuo pipeline

#### 23 Jilin

Fusong, Baishan City, Changbai Mountain International Tourist Resort Zone in Fusong County, Jingyu County

#### 24 Guizhou

Kaili City

#### 25 Yunnan

Dali Haidong New Zone, Baoshan City, Lvchun County



About China Gas

# China Gas is the largest LPG distributor in China





## Enhance Communication with Stakeholders

### Communication with stakeholders and material issues

China Gas attaches great importance to the participation of stakeholders and regards it as an integral part of its blueprint for sustainable development. The Group's stakeholders do not only include the employees, management and directors within the organization, but also include external customers, business partners, investors, creditors, regulators and various community groups. Since the Group's businesses exert different impacts on stakeholder groups, we communicate regularly with them through multiple channels and solicit their feedback and comments. The Group's principal channels of communication with stakeholders are as follows:



## Enhance Communication with Stakeholders

### Material assessment procedures

During the year, China Gas for the first time invited internal and external stakeholders to engage directly in identifying key issues and commissioned an independent consultant to facilitate communication with the stakeholders for a thorough understanding of various stakeholders' opinions and expectations on the Group's sustainable growth in a fair and impartial manner, thus identifying and prioritizing issues that are of utmost importance to the Group's development and that matter most to stakeholders.

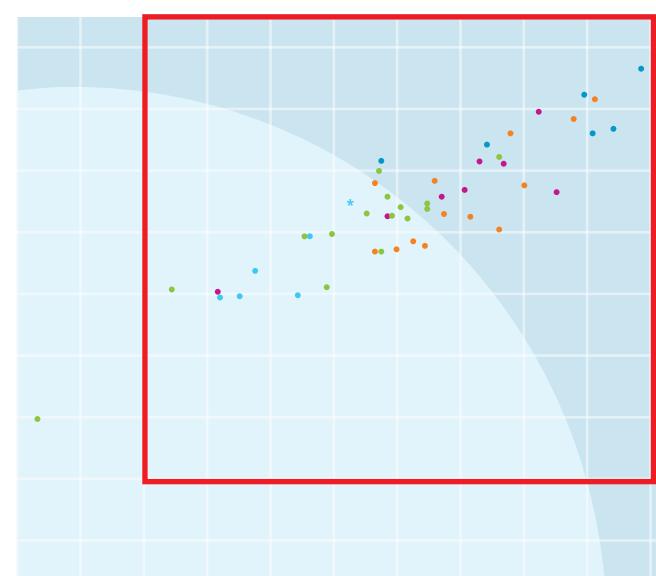
### Identify sustainable development issues

With the help of the independent consultant, China Gas conducted a comprehensive review and revision on the list of issues related to sustainable development of the Group to ensure that these issues fully cover the nature of the Group's businesses and take into account issues raised in previous communication with stakeholders. The Group has identified 48 issues that are most relevant to its business and impact. These issues – spanning the five realms of "economic performance", "environmental protection", "employment and labour standards", "operational practices" and "community investment" – have provided the basis for communication with internal and external stakeholders.

### Conduct materiality analysis

China Gas invited employees from different departments, investors, analysts and representatives of banks, to rate relevant sustainable development issues through questionnaires. The consultant conducted a materiality assessment analysis and identified the most critical issues. In the materiality matrix below, the material issues of the Group are highlighted in green. The issues related to community investment are rated as less important in this survey. However, the management believes that the well-being of the community in which our business operates forms an important part of the Group's sustainability, and therefore the Group incorporated "support for environmental protection and charitable activities" into the most critical issues. The Group identified 26 key issues based on which the sustainability report was prepared.

## Enhance Communication with Stakeholders



## Enhance Communication with Stakeholders

The 26 critical issues on sustainable development are listed in descending orders of importance as follows:

 Economic performance	
1	Disclose accurate corporate information to investors
2	Increase income, reduce operational expenses, and manage assets and liabilities
3	Manage financial risks arising from sustainable development issues
4	Respond to national policies
5	Manage financial opportunities arising from sustainable development issues
6	Protect interests of investors, including interests of small and medium shareholders and establish systems to involve shareholders in governance
 Employment and labour standards	
7	Prevent child labour and forced labour
8	Implement safe production management and offer relevant training, and provide employees with healthy and safe working environment to prevent occupational diseases and work-related injuries
9	Caring for our staff
10	Establish a comprehensive employment management system
11	Provide development and training opportunities to support employees' continuing development
12	Eradicate discrimination and promote equal opportunities in the workplace
 Community investment	
*	Support charitable events on environmental protection
 Environmental protection	
13	Conserve energy and enhance energy efficiency
14	Conserve water and enhance water usage efficiency
15	Reduce and properly tackle air pollutants and greenhouse gas emissions produced in the operations of China Gas
16	Prevent and remedy land degradation and contamination and protect biological diversity to mitigate impacts on the ecosystem
 Operational practices	
17	Prevent bribery, extortion, fraud and money laundering
18	Implement the principle of operating with integrity, establish relevant policies and measures, and perform terms of contracts
19	Protect confidentiality of client information
20	Prevent anti-competitive conduct
21	Evaluate and monitor the impact of the supply chain on environment and society
22	Implement product/service quality management policies to protect customers' safety in every step of our construction and operation and provide customers with high-quality services
23	Promote sustainable development of the industry
24	Support innovation of products/services
25	Ensure all business partners are treated fairly and reasonably

## Enhance Communication with Stakeholders

China Gas believes that stakeholder communication is a dynamic process that should be continuously deepened. Therefore, we have always been aiming at solidifying close connections and establishing mutually trusted relationships with stakeholders to achieve constructive interaction and communication. During the year, the Group initiated a long-term stakeholder communication plan for intensifying communications with different stakeholders in a systematic and phased manner on the Group's environmental, social, and governance performance. To better understand stakeholders' opinions on China Gas' efforts and performance on sustainable development, the Group will engage independent consultants to design various forms of communication activities, including workshops, focused panel discussions, interviews, and questionnaires, for different industry stakeholders, and will report such activities in the future reports. The feedback collected from stakeholders who participate in such activities, and the response of China Gas to such feedback will ensure more comprehensive coverage of the materiality analysis.



### Workshops

Deepen stakeholders' understanding of sustainable development issues



### Focus group discussions

Discuss the roles of the Group and stakeholders in sustainable development



### Interviews

Explore the opportunities and challenges brought by sustainable development to the Group



### Questionnaires

Identify material issues and develop sustainable development strategies

## Enhance Communication with Stakeholders





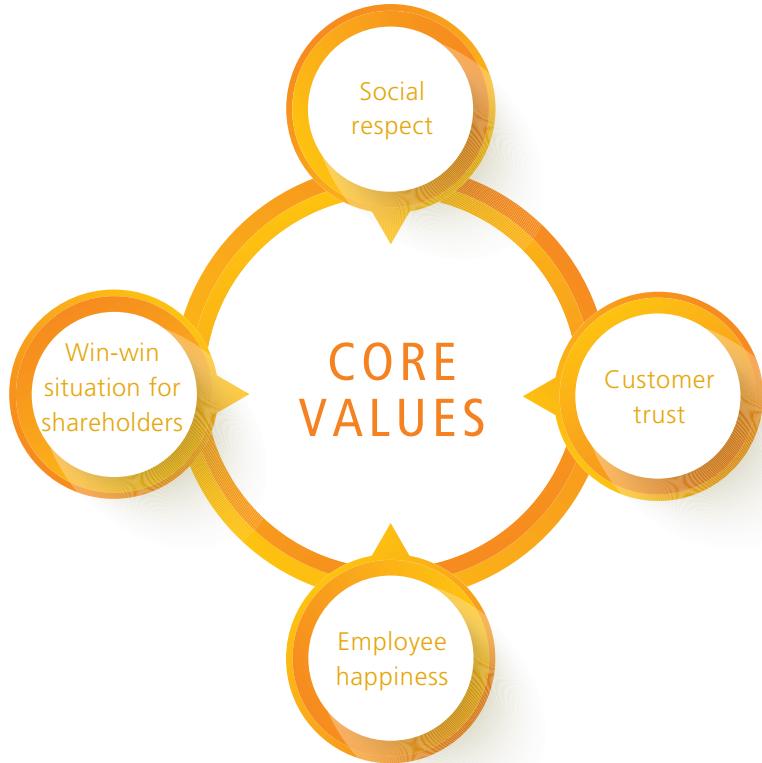
Establish Corporate  
Sustainability Governance



## Establish Corporate Sustainability Governance

### Mission and vision of sustainable development

China Gas adheres to the mission of "Converging in Harmony and Benefiting the Society", implements the concept of green development, and further propels the fulfillment of corporate social responsibility. The Group advocates green, low-carbon, recycling, sustainable styles of production and living, strengthens eco-friendly cooperation, builds ecological civilization, and is committed to creating the greatest value for shareholders, customers, employees, partners and social stakeholders. At the juncture of the nation's expediting reform and innovation in developing clean energy, the Group holds to its core values, continuously enhances its core competitiveness and sustainable development capability, and strives to become the world's leading and sustainably-developing integrated clean energy service provider.



Whilst achieving sustainable development, China Gas balances the needs of its stakeholders to ensure that their objectives are highly in line with the corporate development direction, with a view to jointly building a world-class integrated energy service enterprise.

## Establish Corporate Sustainability Governance

### Sustainability governance structure and risk control system

China Gas is committed to maintaining a high level of corporate governance. The Board believes that good corporate governance is critical to the Company's sustainable development and growth.

#### Governance Structure of China Gas



In order to effectively co-ordinate the work for sustainable development of China Gas, the Board takes the responsibility of enhancing long-term value of shareholders, formulating long-term strategic planning and annual work plan, and making decisions on, planning for, and providing guidance on material issues on social responsibilities. The Board set up five standing committees, including Executive Committee, Audit Committee, Nomination Committee, Remuneration Committee, and Corporate Governance and Risk Control Committee to discuss and make recommendations on different issues and drive the relevant work. All of these committees report to the Board.

During the year, China Gas required the Group's headquarters, regional management centres and project companies to carry out self-evaluation of enterprise risks, including financial risks, legal risks, operational risks, market risks and strategic risks. At the Group level, the Group has set up a "Social Responsibility Taskforce", which is composed of the Group's management and major departments (including Audit and Supervision Department, Legal Affairs and Risk Control Department and Safety Operation Department), to assess the risks faced by the Group and provide advice and guidance on risk management for project companies based on risk assessment results and the fields of expertise of the management teams. At the project company level, the Group intends to set up risk teams to promote and carry out risk self-assessment internally and to supervise and review the company's existing risk management system to ensure that its management program is effective.

## Establish Corporate Sustainability Governance

In 2015 and 2016, China Gas compiled the "Corporate Social Responsibility Report" that was published internally. This year, the Group has elevated the "Corporate Social Responsibility Report" to the "Sustainability Report" and publicized it. This does not only enhance the reporting level, but the Group also expects to integrate the sustainable development issues into business operation in a more in-depth manner and to identify and manage the risks and opportunities brought by the sustainable development issues to the Group during the process of preparing and compiling the sustainability report.

In the course of business development, China Gas continues to improve corporate governance and internal control. The Group undertakes to incorporate effective and sustainable corporate governance and internal control measures into its development strategy and risk management system through self-examination and adoption of professional advice of independent third parties to ensure that the Group is moving towards a higher level of governance and internal control. In addition, in order to provide detailed bases for the construction of organization and procedures of comprehensive risk management and to further beef up its risk prevention capability, the Group has also developed governance documents such as "Comprehensive Risk Management System" and "Risk Control Manual".

### Elements of risk management system

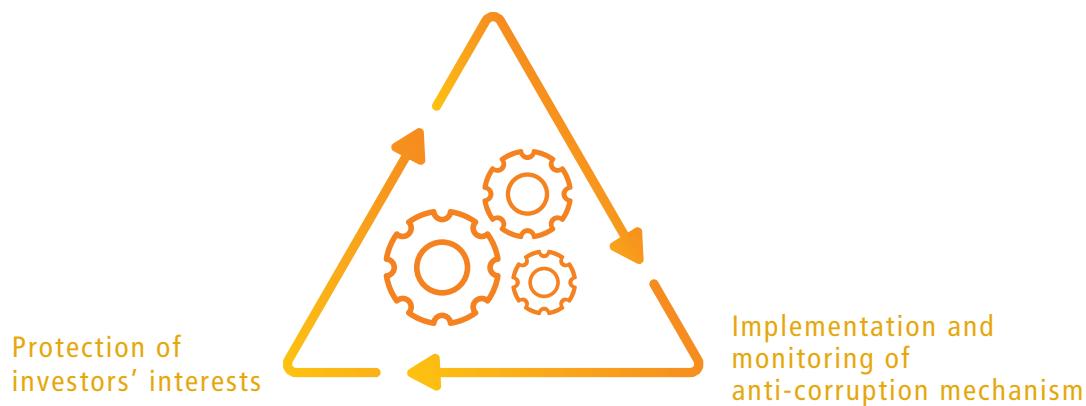


## Establish Corporate Sustainability Governance

### Corporate governance

China Gas firmly believes that good corporate governance can enhance shareholders' value and meet the long-term interests of the Company and its shareholders. The Group believes that the effectiveness of corporate governance is reflected in the transparency of operations, the protection of investors' rights and interests, and the anti-corruption mechanism and uprightness. The Group is committed to maintaining a high level of ethical standards and a sound corporate system to ensure that the Group operates in the most sustainable manner.

### Timely disclosure of corporate information



### Timely disclosure of corporate information

China Gas attaches importance to the performance of duties to investors and creditors and believes that the transparency of corporate information is crucial to investment decisions. While making major business decisions, the Group gives full consideration to the legitimate interests of investors and creditors and notifies them of relevant important information promptly to ensure their rights to information. China Gas pays much attention to communication and sends related information to shareholders through a number of formal channels, including interim and annual reports, announcements and circulars as published in accordance with the Listing Rules. These published documents and the latest corporate information and messages are available on the websites of the Company and the Stock Exchange. In the reporting year, Capital Market Department of the Group held/participated in various communication activities, including over 500 meetings, two analyst briefings, 19 major international investor summits and five domestic and overseas roadshows. All the said activities were held in Hong Kong and Shenzhen offices with analysts and investors. Through such activities, the Group not only disclosed its major operational information on a timely basis, but also maintained real-time communication and exchanges with investors, creditors and other stakeholders.

## Establish Corporate Sustainability Governance

### Protection of investors' interests

China Gas believes that protection of the interests of investors including minority interests is the focus of its corporate governance. In principle, the Group allows shareholders to participate in governance. The diversified background of directors gives a better protection to the interests of minority shareholders and ensures fair and impartial treatment for all shareholders. The Group's annual general meeting also provides shareholders with a platform for participation in governance, allowing the chairmen of all committees of the Board, or other members of relevant committees, and external auditors of the Company to attend the annual general meeting to answer questions from shareholders. The Company also provides such contact information as hotline and e-mail address on its website for the convenience of shareholders to make any comments on the Group.

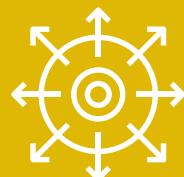
### Implement and monitor anti-corruption mechanism

China Gas focuses on both prevention and monitoring to enhance corporate governance. To prevent such behaviours as bribery, extortion, fraud and money laundering, the Group developed a series of policies and systems including "Internal Audit Supervision and Management System", "Internal Supervision and Reporting Management System", "Upright and Diligent Handbook" and "Engineering Materials Supplier Management System". Regarding bid invitation and bidding activities, the Group strictly complies with relevant laws and regulations such as the Law of the People's Republic of China Against Unfair Competition (《中華人民共和國反不正當競爭法》), Law of the People's Republic of China on Bid Invitation and Bidding (《中華人民共和國招投標法》) and Government Procurement Law of the PRC (《中華人民共和國政府採購法》), and strictly prohibits illegal activities such as colluded bidding and bid rigging in the process. The Group states in its Basic Standards of Employees' Conducts that it resolutely opposes any form of corruption, bribe-taking and offering. All employees are prohibited from obtaining money from others or seeking gains for their relatives and friends by taking advantage of their own positions and duties. During the course of auditing and supervision, if any violation of disciplines is found, the Group will impose penalties according to relevant provisions of Employees' Rewards and Punishments Rules. If they are suspected of breaking the law, they will be handed over to judicial authorities by relevant departments of the Group.

In the market environment, competition between enterprises can increase economic efficiency and encourage innovation, prompting enterprises to provide quality products at reasonable prices to meet consumers' demand. To the best of the Group's belief, a market environment of fair competition will facilitate the whole industry to continuously improve product quality and service. The Group understands that stakeholders are concerned about prevention of anti-competitive behaviours and intends to prepare for the formulation of relevant guidance on the prevention of anti-competitive behaviours next year.

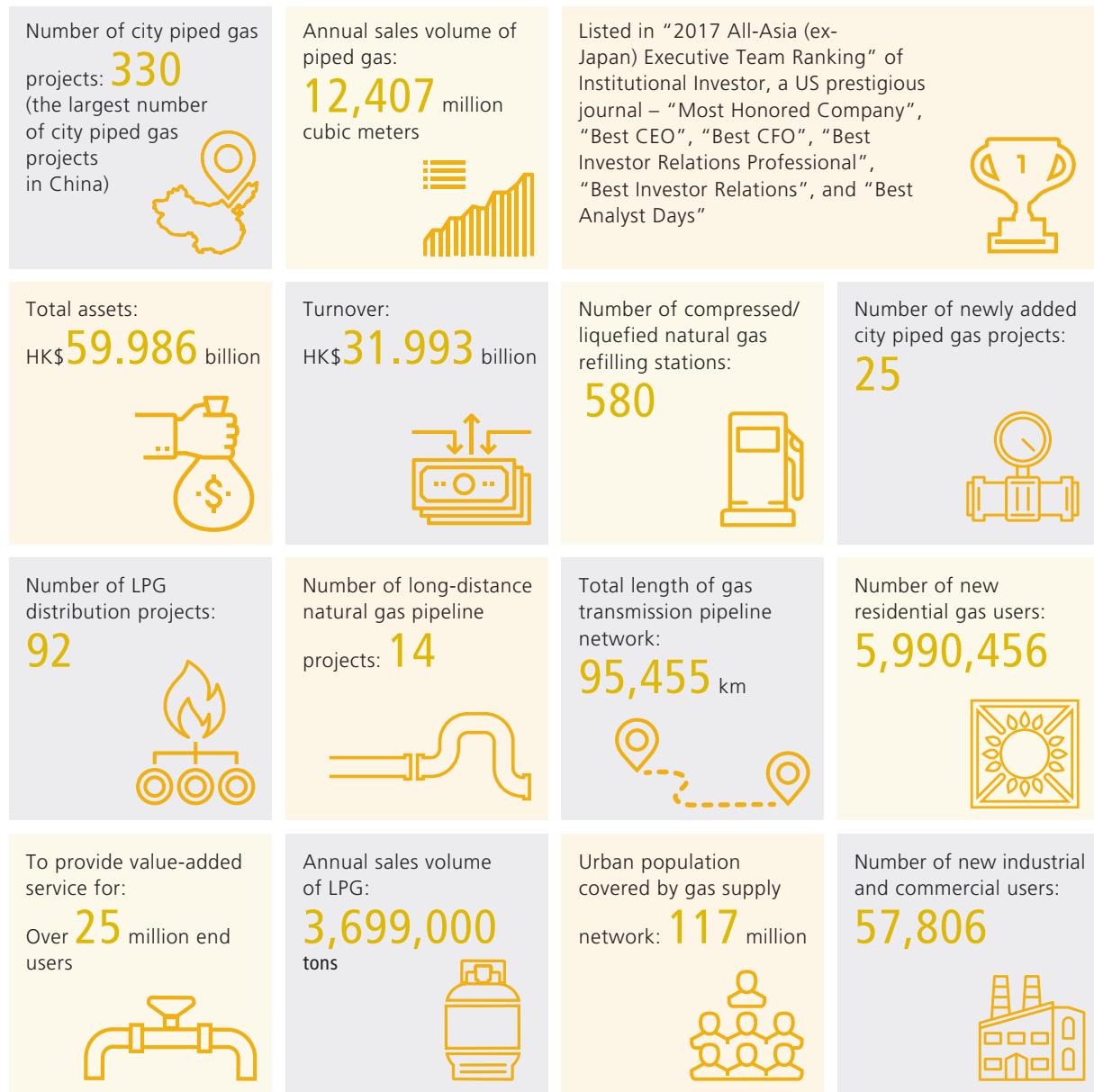


Deliver Sustainable Values



## Deliver Sustainable Values

### Business overview



The above operating data covers all operations of China Gas and has not been adjusted in response to the Company's share of equity.

## Deliver Sustainable Values

### Financial risks and opportunities arising from the management of sustainability issues

For organizations with the principal business of natural gas, the waning demand for natural gas in China has posed challenges to the development of China Gas' business in recent years. However, as the Chinese government is intensifying its efforts in pressing ahead with the market-oriented reforms for the natural gas industry whilst continuously releasing a series of strict environmental policies, the Group is leveraging such opportunity to energetically develop businesses including "coal-to-gas conversion" for industrial and commercial users, distributed energy resources and energy performance contracting and promote "replacement of coal with gas" among residential users in villages and towns in North China and has seen an objective growth in gas demand recently. The Group is a downstream distributor of city gas. The in-depth reform in natural gas industrial chain, especially in terms of regulation over the price system, has posed a potential impact to the Group. The Group will continue to develop businesses, and carry out various value-added services, to supply clean energy for all users.

At present, many regions in China are still using the traditional heavy pollution fuels such as coal and heavy oil. To help industrial and commercial organizations and residential users alleviate air pollutants and greenhouse gas emissions, China Gas pushes forward the process of "coal-to-gas conversion" proactively through its proprietary business. The Group understands that as natural gas is a fossil fuel, its exploitation and combustion can also produce greenhouse gases. However, at a stage that renewable energy is not yet widely applicable, natural gas is still an important source of energy that can satisfy the demand in the PRC market. The Group will pay close attention to the changes of global energy system to fully explore business opportunities that are green, low-carbon, recycling and sustainable.

### Respond to national policies

After the promulgation of Action Plan on Prevention and Control of Air Pollution by the State Council, the National Development and Reform Commission ("NDRC") also issued the 13th Five-Year Plan for Natural Gas Development in 2016. To proactively respond to these national policies, China Gas fully exerts itself to participate in "replacement of coal with gas" in villages and towns to accelerate the process of transforming original coal users to natural gas users.



## Deliver Sustainable Values

### Energy saving and carbon reduction through natural gas infrastructure for enterprises

China Gas has engaged in the municipal natural gas infrastructure development projects financed by Asian Development Bank, providing energy optimization consulting services for a total of 38 enterprises. Such projects include on-site testing and analysis of energy consumption equipment, and test of implementation and verification of energy savings of pilot projects. The Group has completed the above projects during the reporting year, and has put forward several proposals on energy-savings improvement. It is estimated that the Group can save standard coal of over 4,000 tonnes and reduce CO<sub>2</sub> emission by nearly 17,000 tonnes per year.

In addition to “coal-to-gas conversion” for industrial and commercial users and “replacement of coal with gas” for residential users in villages and towns, “natural gas-fired distributed energy resources” for industrial and commercial users is also a key area of China’s energy reform. To actively encourage the development of natural gas-fired distributed energy resources, the NDRC, together with other three ministries, jointly issued the Guidance on the Development of Natural Gas-Fired Distributed Energy Resources as early as in 2011, and afterwards, the NDRC, the National Energy Administration and Ministry of Housing and Urban-Rural Development jointly issued the Regulations for Implementing Pilot Projects of Natural Gas-Fired Distributed Energy. By taking advantage of its edge in piped gas market, China Gas strives to facilitate a wide distribution of natural gas-fired distributed energy resources projects in China.



### Distributed energy resources project in Pukou, Nanjing

With an investment of RMB290 million, the distributed energy resources project in Nanjing Pukou Economic Development Zone provides such energy services as steaming, cooling and heating for enterprises in the zone. By adopting gas turbines with high combustion temperatures, unfired heat recovery boilers and stream turbines, the project is the most efficient combined cycle power generation system nowadays. With simple cycle thermal efficiency exceeding 35% and combined cycle thermal efficiency over 70%, the annual thermal efficiency of the project reaches 73.35%. Due to the application of natural gas, the project is labelled as a clean energy

project. Furthermore, the project is located at the load centre of power consumption, enabling the power supply to the neighbourhood. It is estimated that the project will be put in commercial operation by the end of 2018. Upon completion, it will replace the small coal boilers and effectively improve the local air quality.

#### Scientific fact:

**Distributed Energy Resources (“DER”)** is an innovative way of energy supply. It is a comprehensive energy supply system that is located close to users nearby to supply power, heating or cooling independently. The system can use thermal-electric or triple-combined power supply technologies or such local renewable energy resources as solar energy, wind energy or hydraulic energy to facilitate the promotion of energy efficiency or more effective use of renewable energy resources, and thereby reduce carbon emissions from power generation.



Achieve a Win–win Supply Chain



## Achieve a Win-win Supply Chain

### Responsible supply chain management

The supply chain management of China Gas aims to establish a good partnership with business partners through an open and efficient platform based on the principle of operation in good faith. The Group's Engineering Materials Suppliers Management System serves as the foundation of overall supply chain management, and the Materials Procurement Department of the headquarters is in charge of the management of engineering materials suppliers, and responsible for preparing the management system for engineering materials suppliers, and guiding, supervising and reviewing the implementation of the system in each regional management centre and project company.



### Management of procurement portal operation

All suppliers of important materials of the Group shall be registered with China Gas Procurement Portals, without any other access. The Materials Procurement Department is responsible for the management of the portals, mainly according to business needs of the portals, communicating with Zhongran Technology Company over the system functions, and continuously building and improving the portals. The Group has already finished the first phase of the portals, which has been in smooth operation for over a year, and completed the development and testing of the second phase, which has been officially put into operation. While building the system of the portals, the Materials Procurement Department totally carried out four training activities during the reporting period, providing systematic operation training for project companies and suppliers, and prepared and issued operation guidelines, system manuals and other materials.

### Coordination and supervision

The Materials Procurement Department of the Group's headquarters is responsible for the coordination and supervision of materials procurement activities of relevant departments of the Group, including classification and rating of major and auxiliary materials, and construction and management of supplier database of China Gas Procurement Portals. The Materials Procurement Department assigns dedicated personnel to be responsible for auditing the information reported by suppliers through the portals, conducts on-site inspections irregularly over suppliers whose information has been approved, and undertakes rating assessment of suppliers under the management of the portals. Suppliers that are allowed to be registered with the portals upon investigation after related approval procedures of the Group's headquarters are recognised as "eligible suppliers".

## Achieve a Win-win Supply Chain

### Guidance and training

The Materials Procurement Department is responsible for providing professional support and training on the management of materials procurement activities of the Group, and offering special assistance and training to key project companies. The Materials Procurement Department regularly updates the Group's procurement management system of all kinds of materials, prepares operation guidance, and delivers all the documents to regional management centres and project companies. The Materials Procurement Department uploads professional courseware materials to the E-learning system of the Group for staff in project companies to study independently. The Materials Procurement Department also strengthens on-site trainings for project companies in difficulty, old state-owned enterprises and newly acquired project companies to enhance their procurement management levels face-to-face, based on the Group's annual intensive training courses and different features of various project companies.

### Fair and impartial system

The Group attaches great importance to the management of supply chain responsibility and is committed to establishing an open, orderly and win-win operation platform for positive competition among business partners.

According to the management systems for bid invitation and bidding established by the Group, only "eligible suppliers" that have been registered with China Gas Procurement Portals are eligible to participate in the unified bid invitation held by the Group each year. The Group's various bid invitation activities are supervised by the Audit and Supervision Department, while the Materials Procurement Department is responsible for preliminary work – preparation of the tender documents and submission of tender applications. Upon confirmation of an arrangement made for a new invitation for bid, the Audit and Supervision Department would organise the selection of judges, conduct on-site supervision over the bidding and review bidding results in the later period. In case any supplier enters China Gas Procurement Portals by fraudulent means, or is found being involved in behaviours, including colluded bidding, bid rigging or malicious bidding in the process, that could lead to a violation of contract requirements or national laws and regulations, it will be blacklisted by the Group and be prohibited from participation in any bid invitation and procurement activities organised by the Company and its affiliated project companies.

Aside from a fair access system, the Group also attaches great importance to the regulation on suppliers, so as to evaluate the performance of suppliers in an impartial manner. The status of suppliers registered with China Gas Procurement Portals are categorized into six different statuses, including "certification completed", "suspended", "locked", "removed", "disqualified", and "blacklisted". The Group carries out dynamic evaluation and management of suppliers. The Materials Procurement Department would select a certain number of "eligible suppliers" from time to time annually and conduct on-site investigations on them, in order to verify the continuity of management level, technical competence and so on. The Group has also stipulated related standards, to classify some of those "eligible suppliers" as the first-tier suppliers, who will be considered in priority for bidding invitation and procurement activities by the headquarters and project companies.



Contract performance rate reached 100% during the reporting period.



To date, suppliers that have completed certification process accounts for 200 companies which are located in 19 provinces, municipalities and autonomous regions of China.



Percentage of suppliers that have achieved certification for environmental and occupational health and safety management system reached 100%

## Achieve a Win-win Supply Chain

### Promote sustainability of industry

To support the implementation of “coal-to-gas conversion”, the Group leverages its own technical advantages to propel the sustainable development of the industry and regions involved. On the principle of “sharing resources, collaborating with each other, making progress together and achieving common development”, the Group established China Gas Institute of Technology with Hebei Normal University, with a view to building a base for talent cultivation and technology innovation.

Through the college-enterprise cooperation model, the Group has implemented pragmatic cooperation with Hebei Normal University on the cultivation of application-oriented talents and technological innovation. China Gas Institute of Technology provides undergraduate education during the reporting period, and 124 students enrolled in the major of Building Environment and Energy Application Engineering China Gas Institute of Technology have started their study. The Group is devoted to cultivating various technical and managerial talents who have scientific spirit, engineering literacy, marketing sense, broad vision and professional conduct for the industry. Therefore, China Gas Institute of Technology is comprised of five areas of education: other than the existing undergraduate education, it will also provide post-graduate education, continuing education, vocational education and relevant programs on Hebei Provincial Natural Gas Application Engineering.

In light of projects such as “natural gas use for industrial purposes”, the Group has invited the experts from Tsinghua University, Tongji University and South China University of Technology, North China Municipal Engineering Design and Research Institute as well as some other higher education institutions and scientific research institutes to hold the “Grand Lecture of Energy”, with a view to providing professional insights into industrial trend and cutting-edge technologies and discuss the technological measures for improving environment.

Scientists and engineers of the Research Institute of the Group has also sponsored the teachers of China Gas Engineering Institute to carry out research on cutting-edge technologies related to energy industry. As a result of the research work, applications for three invention patents and eight new utility patents have been filed up to now. Through such channels as “China Gas Technologies Exchange” and “WeChat Official Account of China Gas Research Institute”, the Group also shared these scientific research achievements among the frontline employees in-house or externally contracted.



Create an Ideal Working Environment  
for Employees



## Create an Ideal Working Environment for Employees

### Establish a comprehensive employment management system

Employees are the most valuable assets of China Gas, and the major driver of the Group's sustainable development. We are devoted to becoming an outstanding employer by establishing a comprehensive human resources management system with the principle of "people-oriented and pursuing excellence" to provide standards and guidance for various management work in employment.

#### Remuneration system

- Adjust payrolls according to different local policies on salary standards
- Provide incentive performance-based pays

#### Benefits and subsidies

- Provide length of service subsidy, festival allowance, physical examination allowance, withholding of supplementary commercial insurance premium, medical insurance, and diet subsidies, etc

#### Recruitments and promotions

- Stipulate China Gas Recruitment Management System to build the staff team of the Group based on the principle of "recruiting employees in a open, fair, equal and person-job fit manner".
- The Group will first consider the promotion among the internal high-performance employees, and then the external recruitments, so as to provide encouraging promotion opportunities for all employees.

#### Family friendly

- Respect employees' family responsibilities, and localize employees and cadres, so as to enhance the stability of staff team and intensify resource complementarity.

### Number of employees during the reporting year (by rank, age and gender)

Rank	Below 35 years old	35–50 years old	51–59 years old	60 years old or above	Male	Female
Management	23	921	141	11	1,035	61
Managers	453	1,075	114	3	1,177	468
Ordinary employees	13,405	20,241	3,737	13	30,298	7,098
Total	13,881	22,237	3,992	27	32,510	7,627



### Staff turnover and new hires during the reporting year (by age and gender)

Type of employees	Employees turnover	Percentage by type (%)		Percentage by type (%)	
		New hires	type (%)	New hires	type (%)
<b>by age</b>					
Below 35 years old	739	42.62%	1,074	53.25%	
35–50 years old	728	41.98%	907	44.97%	
51–59 years old	186	10.73%	36	1.78%	
60 years old or above	81	4.67%	0	0%	
<b>by gender</b>					
Male	1,102	63.55%	1,272	63.06%	
Female	632	36.45%	745	36.94%	



## Create an Ideal Working Environment for Employees

### Ratio of basic salaries and remuneration of male and female employees during the reporting year (by rank)

Rank	Ratio of basic salaries of male and female employees (Note 1)	Ratio of remuneration of male and female employees (Note 2)
Management	1:1.03	1:1.01
Managers	1:1.18	1:1.15
Ordinary employees	1:2.41	1:2.27



Note 1: Basic salaries refers to the fixed minimum amount paid for the performance of the employee's duties, excluding any additional remuneration, such as overtime pay or bonus.

Note 2: Remuneration is the basic salaries plus the allowances, bonuses (including cash and equity interest, such as stocks and shares), benefits, overtime and any other subsidies (such as transportation subsidies, living allowance and childcare subsidies).

### Prohibition of child labour and forced labour

The Group is fully aware that child labour and forced labour violate basic human rights and international labour conventions, and pose a threat to sustainable social and economic development. The Group strictly abides by the Labour Contract Law and other applicable labour laws and regulations, prohibiting child labour and forced labour. China Gas Recruitment Management System sets out that employment of those who are under legal working age or provide the false identity is strictly prohibited, and specifies measures regarding working hours, overtime work and leave management for employees, thus safeguarding their interests. During the reporting period, no illegal case regarding child labour or forced labour occurred within the Group.

The Group will prepare more specific policies and management measures regarding prohibition of child labour and forced labour in light of the spirit of the United Nation Global Compact in the future, aiming at being part of the "Global Compact" citizenship.

**A**s the world's largest corporate citizenship initiative, United Nations Global Compact provides enterprises with operational frameworks in the areas of human rights, labour, environment and anti-corruption. Labour Standards of the Compact include the elimination of child labour and all forms of forced and compulsory labour.

### Protection of employees' health and safety

The Group always gives top priority to safeguarding the safety and health of its employees. Gas industry is of high hazardous nature. In order to ensure the work safety of employees, the Group uses "Safety First, Prevention Foremost" as the policy, and has developed a set of standards that is recognised by Occupational Health and Safety Assessment Series ISO18000 standards and corresponds with the Environment, Health and Safety ("EHS") management system of the Group's business, including formulating various safety management systems, operation procedures, assessment standards and safety emergency plans

**T**he Group has formulated and issued over 20 Safety Management Systems and Safe Operation Procedures and Guidelines, including Safety Inspection and Hazard Rectification System, Safety Management System Regarding Gas Operation, China Gas Safety Supervision Guidelines, Safety Emergency Plans.

## Create an Ideal Working Environment for Employees

In order to effectively implement safety management, the Group has established a management structure for safe operation, and all project companies are required by the Group to set up safety management organizations and safety accountability systems for employees of all levels.

The Group focuses on improving staff's awareness and skills of safe operations, and has developed training materials including Gas Transmission and Distribution and Operation Management, 200 Questions You Should Know about Gas Transmission and Distribution, and China Gas Production and Operation Training Videos. Each project company provides training on laws, regulations, safety knowledge and professional skills at least once a month according to actual situations.

Daily safety education	Provide special safety education and training according to the operation situation and production needs, and conduct training evaluation. Unqualified employees have to be suspended from duties and can only resume duties after passing make-up examination.
Education for new post	Employees who have changed their positions need to receive safety education regarding their new posts before independent operation.
Special safety education	Prior to using new technology, process and equipment, safety technical regulations must be formulated and related employees must receive professional know-how training and safety education.

**The Group's work-related injury rate per 1,000 persons and the number of lost working days due to work-related injuries (by gender)**

Gender	Number of work-related injuries	Number of fatalities	Work-related injury rate per 1,000 persons	Number of lost working days due to work-related injuries
Male	17	0	0.52	5,100
Female	5	0	0.66	750
Total number of work-related injuries	22	0	0.55	5,850



## Create an Ideal Working Environment for Employees

### Caring about staff's well-being

The Group believes a sound working environment will not only improve work efficiency, but also enhance employees' sense of belonging to the enterprise. We attach importance to employee care and pay attention to solving difficulties and problems in their work and life. The Group has set up a Staff Care Committee to care for the employees' wellbeing through various welfare practices and diversified leisure activities such as providing food for employees who work overtime, carrying out democratic life meetings on a regular basis, outdoor climbing, birthday parties and medical examinations.

The management of the Group respects the rights of employees to equal opportunities and is committed to creating an equal and diverse workplace. The Group has developed the Human Resource Management Manual to promote an open, fair and equitable recruitment process. The Group also strives to build a sound staff communication mechanism, with multiple complaint and reporting channels. In accordance with the Group's internal audit system, the Audit and Supervision Department will conduct a fair and impartial investigation on each complaint. The results of the investigation will be reported to the management when needed and will be sent back to the complainant. During the reporting period, there is no case of non-compliance regarding child labour or forced labour having occurred within the Group, nor the case of discrimination regarding gender, race, age and health during the recruitment process.

- Listen to the voice of employees on Wechat platform

We care about the mental health of our employees. In order to maintain communication with the staff, further understand and respond to their needs, we have set up a "Listen to your voice" section on the Group's "China Gas Home" WeChat platform for employees to put forward their difficulties and worries in work and life, which are to be addressed and replied by professional departments of the Group. Since the opening of the platform in November 2015, a total of more than 400 problems have been collected, all with feedback and responses from related departments.

- Organize staff games to enhance team spirit

Fun games for staff of headquarters was held in Shenzhen Maritime Field this year. Staff members of all departments of headquarters and specialized companies and their families participated in the games, totaling more than 580 people. There are men's individual and women's individual as well as family's fun games, among which there are three aquatics combining fun and competitiveness to let employees show themselves in a relaxing environment. During the games, the staff not only showed their tenaciousness and solidarity which led to improved team cohesiveness, but also, and more importantly, relaxed themselves and gained joy from the games.

- Offer a hand to employees in need

The Group offers care and assistance to employees with difficulties in life as well as sick employees and their relatives. We have provided help up to 11 times in the year, involving a total amount of RMB410,000 and HK\$300,000 in cash. In addition, internal donations have been held as well to provide timely assistance to sick employees to meet their emergency needs.

- Elites of the Year

The "Elites of the Year" selection event held annually to select outstanding employees and managers is a platform for outstanding employees of China Gas to show themselves. It plays an important role in further enhancing team cohesiveness and staff's centripetal force to the Group.

## Create an Ideal Working Environment for Employees

### Encourage staff to develop themselves

The Group is convinced that nurturing and retaining outstanding talents is at the core of ensuring that businesses are able to develop and sharpen the competitive edges. The Group implements the people-oriented concept that the staff is seen as a strategic partner, and has developed a "Training and Management Regulations" to plan staff training and encourage staff development in a systematic way.



During the reporting period, the Group arranged **1,193** online learning courses involving **1,605** courses covering the important documents

The Group's staff training management system is made up of a three-tier management system, including the Group's headquarters, regional management centres and project companies. Each year, the project companies prepare and implement training programs in accordance with the training topics and priorities of the Group's headquarters and regional management centres. The training is divided according to the career growth stage after the employee enters the Group, varying from the basic training for newly recruited staff, the training for the transferred staff to the management skills training for senior management personnel. In response to the actual needs for different departments and functions, the Group provides all types of trainings in a targeted manner so as to help employees to gain sustained improvement in work skills and professional competence.

The Group coordinates the training module through the Human Resources and Corporate Culture Department, and provides employees with online learning opportunities through the "E-learning" system. During the reporting period, the Group arranged 1,193 online learning activities, involving 1,605 courses and covering the important documents, systems and professional courses published within the Group. The number of participants in these activities amounted to 110,943, of which 35,752 participated in the online examination conducted by the Group to gain continued improvement of personal capacities.

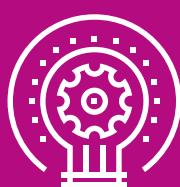
### Average training hours for employees (by rank and gender)

Rank	Average training hours for male employees	Ratio of male employees received training		Average training hours for female employees	Ratio of female employees received training
Management	6.6	100%		42.4	100%
Managers	30.6	100%		29.3	100%
Ordinary employees	54.2	100%		87.5	100%





Provide Safe, Quality  
and Innovative Services



## Provide Safe, Quality and Innovative Services

### Ensure reliable and safe operation

China Gas always prioritizes safe production at work, and implements the safety management principle of "Safety First, Prevention Foremost, and Comprehensive Management". The Group has developed a comprehensive safety management system to ensure the safety of employees, customers and the local residents at stages of construction and operation. The Group also updates its relevant systems, procedures and guidelines, including the "Management System of Safety Incidents", "Comprehensive Management Measures and Treatment for Safety Incidents" and "Safety Management Procedures for Gas Users", in a timely manner.

- 
- 1 Organizational framework of safety operation**  
Dedicated safety management departments are set up in the headquarters, regional management centres and project companies, and each management personnel is required to hold a safety management qualification certificate awarded by the PRC government.
- 2 Safety accountability system for personnel at all levels**  
Project companies have established clear safety responsibilities for managers and staff at all levels.
- 3 Safety targets, standards and measures**  
According to the targets of enterprise safety management, project companies sign safety responsibility letters at all levels to ensure that all departments, units and employees strictly implement the relevant targets, standards and measures.
- 4 Safety management systems and operating procedures and guidelines**  
A total of 28 safety management systems and 22 sets of operating procedures and guidelines, including the categories of pipeline network safety and user safety, were formulated.
- 5 Safety emergency plans**  
Project companies have prepared "Emergency Plans" to provide clear guidelines for employees to deal with accidents occurred in gas pipeline network or gas station system. The scope of these plans covers the composition, responsibilities and division of labour of emergency response and rescue teams, as well as a summary of repair equipment and safety equipment and facilities.
- 6 Special management standards on safe operation**  
Management standards on safe operation are formulated for different working environment of special operations, ignition operations, confined space operations and high-altitude operations, and for different products such as LPG cylinders and hazardous chemicals.
- 7 Safety facilities**  
All kinds of dangerous facilities or places are equipped with safety warnings as well as protection facilities against fire, explosion, thunder and poison.
- 8 Safety incident management**  
Project companies must report each safety accident through reporting lines within 24 hours after the accident, regardless of the amount of the loss and the degree of responsibility. A major accident involving an explosion or casualties must be reported to the regional management centre within one hour after the accident.

## Provide Safe, Quality and Innovative Services

### Safety targets of this reporting year

- No major or severe safety incident occurred
- 100% of safe production responsibility letters are signed
- 100% of safety trainings are implemented
- 100% of special operators hold qualification certificates
- Pipeline networks pressure and leakage detection tests and users safety checks were 100% performed
- Pipeline networks and gas facilities were 100% inspected
- Perform safety checks at least once a year for 100% of resident users
- Conduct safety checks at least once per half year for 100% of public welfare and commercial users
- Conduct safety checks at least once per quarter for 100% of industrial users
- Gas safety manual is distributed to and confirmed by 100% of gas users
- 100% of firefighting facilities, gas safety facilities, alarms and leakage detectors are in good conditions
- 100% of external construction entities are trained for safety and sign safety agreements
- 100% of safety incident are reported in a timely manner
- 100% of safety incidents are investigated and handled



### Rectification and management of transmission shortage

Gas leakage does not only affect the corporate economic efficiency of enterprises and produces carbon emissions, but may also cause severe safety accidents. China Gas implements a two-level transmission shortage management mechanism, under which the Safety Operation Department of the headquarters is responsible for leading the rectification at all levels and implementing accountability-based assessment on transmission shortage indicators. The Group re-compiled the "Rectification and Management Procedure for Transmission Shortage" in the end of 2015 and formally implemented it in 2016. The re-compiled Procedure augmented the rectification in four aspects to improve transmission shortage management, including transmission shortage in gas pipeline networks, transmission shortage arising from metering, transmission shortage arising from meter reading, and transmission shortage arising from gas theft.

## Provide Safe, Quality and Innovative Services

### Rectification of transmission shortage arising from metering

- Establish and improve metering management system
- Strengthen the maintenance and detection of flow meters

### Rectification of transmission shortage in gas pipeline networks

- Establish and improve dispatching and inspection systems to ensure the sealability and safety of gas transmission and distribution system
- Establish and improve leakage detection and leaking stoppage mechanisms to control the leakage rate of the sealing point of gas transmission and distribution system
- Establish and improve rescue mechanism to control gas leakage and the occurrence of sudden accidents in gas transmission and distribution system

### Rectification of transmission shortage arising from gas theft

- Take practical measures to prevent gas theft
- Put more efforts in inspection and crack down gas theft

### Rectification of transmission shortage arising from meter reading

- Check the record, account information, meter and leakage for users in an in-depth way
- Customer manager is responsible for checking the safe operation of gas facilities
- Discover hidden safety dangers, and promptly instruct the maintenance staff to carry out maintenance and rectification

In order to implement transmission shortage rectification, the Group has established monthly transmission shortage analysis report system and carried out field study to collect information, and sends dedicated staff to project companies to provide technical support, helping old state-owned enterprises and companies with difficulties to improve their transmission shortage management and rectification levels, and concurrently to promote their safety management levels. During the reporting period, the Group maintained a leading position in the industry in terms of transmission shortage management.

#### Scientific fact:

Transmission shortage refers to the difference between the amount of gas purchased and the amount of gas sold, and it is a comprehensive indicator measuring gas enterprises.

## Provide Safe, Quality and Innovative Services

### Emergency drills

For gas enterprises, carrying out emergency drills to simulate the occurrence of safety accidents improve the emergency response capabilities and reduce losses caused by the accidents. China Gas is fully aware of the importance of emergency management. During the reporting period, the Group held 700 comprehensive emergency plan drills, special emergency plan drills and on-site disposal program drills in China, involving more than 40,000 employees.

The Group conducted two large-scale emergency drills in North China, which were conducted in Shuzhou Fuhua Gas Co., Ltd. (朔州富華燃氣有限公司) ("Shuzhou Fuhua") and Shijiazhuang Gaocheng Zhongran Xiangke Gas Co., Ltd. (石家莊市槁城區中燃翔科燃氣有限公司) ("Gaocheng Zhongran"). The emergency drill in Shuzhou Fuhua mainly inspected the overall emergency response capability and the linkage with the government. The emergency drill in Gaocheng Zhongran mainly focused on the enterprise's rescue capability to deal with emergencies with an emphasis on the process and details of the rescue. Other project companies also carried out various types of emergency drills, including gas filling station emergency drills, anti-terrorism emergency drills and fire emergency drills.

In 2017, leaders of the Group of 20 (G20) major economies gathered in Hangzhou to hold the G20 Summit. In order to support the security work of relevant governmental departments and provide the greatest safety guarantee for the smooth holding of the summit, the Group took part in the emergency rescue and anti-terrorism and anti-riot comprehensive exercise for the G20 Summit, the Hangzhou underground pipeline security meeting for the G20 Summit, and the Xiaoshan District underground pipeline security meeting for the G20 Summit.

In addition, the Group has never relaxed its efforts with regard to the fire safety of office area. During the reporting period, the Group arranged the staff to participate in the simulated fire evacuation drill in office area, during which the Group was implementing the pre-arranged operating procedures including fire reporting, firefighting, evacuation of people and swift evacuation from the fire scene. With the participation of more than 10,000 employees, the drill improved the emergency awareness of employees and their abilities to deal with emergencies.



## Provide Safe, Quality and Innovative Services

### On-site inspection and safety education

China Gas is committed to all-round protection of user safety for customers. In addition to safeguarding customer safety through the safe operation management system, the Group also attaches importance to safety management in terms of gas end use. The Group implements indoor safety inspection and carries out special inspections on unsafe factors in the environment when using the gas, thereby reducing hidden danger and the occurrence rate of accidents. After safety check, users can confirm the check through customer management system, thus ensuring the legitimacy and compliance of operational staff.

In addition, the Group is particularly concerned about the safety education of customers so as to improve the customer's emergency response capability. The Group provides information to customers through the WeChat platform for safety publicity. It also organizes activities such as professional knowledge training, safety knowledge competitions, school lectures, and community safety awareness animation for industrial and commercial users. The Group set June 2016 as the safety month during which safety education training week, safety publicity week, safety culture week and emergency plan drills week were held. During the month, the Group distributed more than 17,000 safety information materials and carried out various safety inspection, publicity and training activities on the theme that "Gas safety related to thousands of households, and safe use of gas without violation of regulations".



• Employee training



• Safety check



• Community activities



All kinds of special safety inspection:  
**3,517** times



Publicity in communities:  
**78** times



Participants of the trainings: more than  
**8,000** people



Gas safety knowledge publicity:  
**508** times



Safety knowledge trainings:  
**229** times



Special safety activities: more than  
**150** times

## Provide Safe, Quality and Innovative Services

### Provide quality and innovative services

Being customer-oriented, China Gas is committed to meeting the ever-increasing needs of customers with high quality services. Based on the existing business, the Group is guided by customer needs to continuously explore the potential customer service and provide innovative services.

The Group attaches importance to the confidentiality of customer information. For customer information collected during service process, the Group strictly implements the account authorization management requirements through customer service information system to effectively protect the safety of customer information. The Group also backs up the customer information to the bank vaults in time.

The Group values customers' opinions greatly. The Group investigates the causes of complaint in each case in a timely manner and follows up and deals with the complaint promptly. During the year, the Group received 37 complaints related to the services of project companies, involving installation, maintenance, security check and other aspects. All cases were properly handled during the reporting period. The Group believes that, through close communication with customers, project companies can really "procure satisfaction for customers" in every aspect of the work. During the reporting period, the Group found no cases of violation of any regulations related to product liability.

### Continuously improve customer satisfaction

To enable customers to enjoy higher-quality service, the Group has reorganized customer service management framework to a three-tier management framework of headquarters, regional management centres and project companies in the year. To specify the duties of different levels, the Group also formulated eight regulations and guidelines on customer service management, seven guidelines on customer service skills and 20 management regulations for the purpose of continuously improving customer service quality with a better management mechanism.

In 2016, the Group commissioned an independent consultant to conduct user satisfaction surveys to collect customer opinions in a broader and deeper way and thereby to examine the level of its service objectively. The independent consultant conducted surveys on three different groups of users, namely, residential users, industrial users and commercial users, covering user demand point at each service link of eight regional management centres and 57 project companies. Through the application of survey methods such as satisfaction return visit via the telephone, covert visits of mysterious customers, internal visits, and desk research, the independent consultant sought to find out the shortcomings of its service and analyze underlying reasons, thereby enhancing management methods and improving management system.

The survey showed that users generally are of the views that China Gas is a reliable and trustworthy company that deserves the customer satisfaction that is higher than that of the other local utilities companies such as water suppliers, power suppliers, transportation companies and telecommunication service providers. As to the feedback collected from users in the survey on the efficiency of the service, the Group will proactively strengthen the management and continuously improve the skills and service levels of the employees so as to provide quality services to customers with a quick response.



## Provide Safe, Quality and Innovative Services

### Cylinder design upgrade

In 2016, China Gas submitted an application for using special colours and special appearance for its LPG cylinder. The new design of the cylinder includes the steel seal of cylinder cover number to facilitate the management of each project company. The Group also improved LPG cylinder procurement technical specifications and put forward more detailed requirements for the weight and appearance of the cylinders. The new design also includes clearer safety instruction to provide users with adequate protection. At present, the application for the updated design of the cylinders has been filed with relative authorities in all provinces in the country, and the appearance program is being improved based on the demand of actual use.

Meanwhile, the Group conducts continuous supervision of suppliers and retains suppliers with better product quality and service level for continuous cooperation. It also continues to develop new suppliers and has preliminarily achieved a full range of supplier reserves for different regions to meet the growing demand of users for gas products.



### One – stop smart living service platform

China Gas takes initiative to make use of internet to provide customers with convenient services by an innovative thinking. During the reporting period, the Group launched a one-stop smart living service platform by using "Zhongran Smart Living" as the service brand to bring a fresh and new experience to customers. Through Zhongran Smart Living mobile application program and WeChat official account of Zhongran Smart Living, customers can easily place gas orders, make payment and recharge, report gas consumption and submit request for installation and repair through the internet. Zhongran Smart Living has different products, such as food, specialty, kitchenware and gas appliances and other products from different places in the country, and provides home service and community service in order to construct an one-stop smart service platform for customer.

In addition, the Group proactively promotes various value-added services related to gas sales, such as the marketing of gas appliances, corrugated pipe for gas and gas alarm under the brand of GASBO, comprehensive gas insurance agency, and maintenance and reconstruction, with a view to serving customers in an innovative way.



Build a Green Future



## Build a Green Future

The United Nations defines sustainable development as "the development that meets the needs of the present without compromising the ability of future generations to meet their own needs". To achieve sustainable development, the key point is to coordinate economic development, environmental protection and social harmony. These three aspects are closely correlated, which is essential to the healthy development of enterprises and society.

China Gas is committed to achieving harmonious coexistence among business operation, local environment and social environment. The Group has developed an "Environmental and Social Management System" to set up the framework of environmental and social policies to ensure that operations are in compliance with applicable PRC environmental laws and meet the requirements for environmental and social security as defined in the 2009 Safeguard Policy Statement of the Asian Development Bank (ADB). The Group requires all its business units and affiliated companies to effectively implement the relevant policies. It has, based on the ISO 14001 standard, set up an environmental management system and prepared EHS management guidelines to regulate environmental protection, occupational health and safe production.

### Reduce emissions

**C**limate change has brought unprecedented challenges to global economic development. The extreme weather directly or indirectly caused by climate change affects the ability of different entities to access resources and maintain business activities, and reducing greenhouse gas emissions is the most important mitigation tool to address climate change. As the world's second largest economy, China has made important commitments to tackle climate change and promote low carbon development and energy reform.

Energy institutions play a major part in dealing with climate change. China Gas endeavors to build an overall energy supply chain through synergies between its business sectors to achieve full coverage of city gas supply. As a city gas distributor, the Group is actively providing gas products which are cleaner than coal and services to customers in different regions. During the year, the Group signed Clean Energy Strategic Cooperation Framework Agreements with a number of cities to carry out projects such as "replacement of coal with gas" in countryside, coal-fired boiler conversion in urban areas, vehicle natural gas, distributed energy resource, and natural gas storage facilities and natural gas pipeline network constructions, which reduce greenhouse gas emissions and pollutants, so as to make contribution in reducing the smog in the cities.

At the same time, the Group is also very concerned about the impact of its own operations on the environment. The Group constructs the main and the branch pipelines network of natural gas pipelines in cities to connect the natural gas pipelines to residential, commercial and industrial users. The Group is well aware that any leakage of gas pipeline network will have a serious impact on the surrounding environment, therefore the Group has been working hard to ensure the safety and stability of gas pipeline network. The Group monitors and manages gas pipeline network all the way, from design and construction to repair and maintenance. The Group implements comprehensive management to reduce gas leakage and the probability of safety incident occurrence through systems and mechanisms such as "Transmission Shortage Rectification and Management Regulation", "Dispatching System and Inspection System", "Leakage Detection and Prevention Mechanism" and "Emergency Maintenance Mechanism".

### Dispatching system and inspection system

- Set up a dispatch centre and team to be responsible for implementing emergency plans and scheduling and commanding rescue and maintenance to ensure the containment in and safety of gas transmission and distribution system.

### Leakage detection and prevention mechanism

- Rectify the main parts of gas leakage
- Develop the Management Guidelines for Gas Pipeline Network Inspection, which sets out the contents, standards and monitoring of gas pipeline network inspection

### Emergency maintenance mechanism

- Prepare emergency response plans and conduct drills
- Develop the Operation and Maintenance Management Standards for Gas Facilities, which sets out the management standards for pipeline network maintenance team, rescue maintenance team, natural gas sphere tank maintenance, and safety valve maintenance



## Build a Green Future

### Pipeline network renovation plan

During the reporting period, the Group increased the allocation of resources and launched a three-year renovation plan for the cast iron (old) pipeline network of project companies, with the aim of conducting comprehensive cleaning and renovation on the cast iron (old) pipeline network which is more prone to leakage possibilities and causes long operating time. The plan focuses on the pipeline network located in the northeastern region, the northwestern region and the North China region, so as to timely eradicate risks to avoid gas leakage.

While the Group's expertise can help customers reduce the emission of greenhouse gases and pollutants, the Group is aware that its own operations also generates emissions. The Group emits, directly and indirectly, greenhouse gases through its daily operation because of energy consumption; and its vehicles also emit a small amount of exhaust gases during transportation, including NOx, SO2 and RSP PM10. However, the Group produces no significant amounts of waste and sewage. The Group has included carbon assessment and statistics on other emissions into its work plan for the next reporting period, and the Group will set targets and priorities for emission reduction in order to make the work flow of emission reduction more efficient.

### Improve Resource Use Efficiency

At present, resources consumed in China Gas's daily operation and goods transportation mainly include natural gas, LPG, gasoline, diesel, external purchased electrical power, and the water used by employees. The Group upholds the principle of effective use of resources, advocates a conservation-oriented development model, and continues to implement a series of green operation measures.

#### Energy conservation



- Use energy-saving equipment such as inverters
- Separate production from electricity for production
- Timely overhaul high energy consumption equipment
- Adopt video conferencing system to reduce energy consumed by employees during business travel

#### Water conservation



- Use recycled water in natural gas compressors, ice machines, sprinkler systems and other water equipment to enhance water use efficiency

#### Paper reduction



- Promote the paperless office, use electronic files to replace printing

### CEM Energy Management Training

In order to support the management to carry out the working philosophy on low-carbon environmental protection, China Gas continuously improves the management's environmental awareness and ability. During the year, the Group provided energy management training for certain senior technical management personnel. This training is an external course, the content of which includes energy management concepts and methods, energy efficiency improvement, pollution and emission reduction, and energy conservation management. Employees who have passed exams were also awarded a certified energy manager (CEM) certificate from The Association of Energy Engineers. Through the training, the Group's senior management staff are able to better implement the Company's environmental management policies, while driving employees to form environmental friendly work habits.

## Build a Green Future

The Group believes that it is necessary to set clear objectives to improve the effective use of resources. The Group plans to make a more comprehensive report on the consumption of its own resources in the future, and use these data as a benchmark for establishing quantitative targets for resource consumption, with the goal of continuously improving resource use efficiency in its own operations.

### Protect environment and natural resources

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- 1** Avoid bidding on ecologically sensitive environment
  - 2** Review the environmental impact assessment and environmental management plan of the projects developed by local governments for a project
  - 3** Incorporate the environmental management provisions into the construction contract to ensure the full compliance of contractors with the provisions
  - 4** Review the design to ensure full compliance with the environmental management plan



In terms of long-term strategic development, the Group will closely follow the government to promote the multi-energy demonstration projects with an integration of wind energy, solar energy and geothermal energy, and gradually transform itself to an integrated energy service provider after 2020.

China Gas respects natural environment. It takes into account the impact of activities on the environment as a whole, and strives to cherish resources and protect biodiversity. To reduce the impact of its operations on the natural environment, the Group follows a series of guiding principles and treat such compliance as a part of standard operation.

For projects which are required to submit an environmental impact assessment ("EIA") report, the Group developed the Environmental Impact Assessment Report Outline to guide the preparation of the EIA report, so that the EIA report can accurately reflect the potential environmental impact and the risk degree. The Group understands that environmental assessment is a process rather than a one-time report, which needs to go through the project cycle for environmental analysis and environmental management planning. The Group requires the EIA report to predict and assess the positive, negative, direct and indirect impacts of the projects on nature and ecology in a quantitative approach, and identify further concerns. For the expected environmental impact, the report shall put forward mitigating measures and alternatives, as well as monitoring and reporting procedures. The report shall also describe communication procedures with stakeholders and complaints mechanism. The Group will strictly abide by the laws, regulations and related requirements of environmental protection. During the reporting period, the Group found no cases of violation of any regulations related to emissions or environmental impact.

China has become the world's largest producer and consumer of renewable energy sources. In terms of long-term strategic development, the Group will closely follow the government to promote the multi-energy demonstration projects with an integration of wind energy, solar energy and geothermal energy, and gradually transform itself to an integrated energy service provider after 2020. As a company that makes continuous progress, the Group will invest more resources in the future, and formulate more detailed internal environmental guidelines, and long-term sustainable development policies and road maps to actively promote environmental initiatives.



Build a Better Community



## Build a Better Community

Being a corporation attaching great importance to social responsibility, China Gas is committed to understanding and responding to the needs of the community where it operates, and assisting in establishment of a healthy and vibrant community to make contributions to the sustainable development of the community.

The Group understands that project operations may have an impact on the surrounding areas. Therefore, it strives to avoid and reduce the disruptions to the living and livelihoods of community members during the construction period, and strictly follows a series of guiding principles to promote social harmony and integration.

### Social Policy Guiding Principles



### Involuntary resettlement

The Group's project activities, such as land acquisitions and right-of-way acquisitions, may lead to involuntary resettlement. In accordance with the Involuntary Resettlement Guarantee Requirements II contained in "2009 Guarantee Policy Statement" issued by Asian Development Bank, the Group has formulated the Resettlement Planning and Policies which stipulates the procedures and responsibilities for controlling relevant risks and impacts. The Group's objectives are to avoid involuntary resettlement if feasible; to minimize resettlement in the event of relocation; to ensure that re-settlers or affected persons are compensated or assisted; and at least to keep their situation in good condition. During the year, the Group did not have projects which require resettlement of residents. If there is a genuine need for resettlement in the future, the Group will make proper arrangements for the affected residents in accordance with established procedures.

## Build a Better Community

### Charitable activities

With the mission of "Converging in Harmony and Benefiting the Society" and gratitude, China Gas is actively engaged in disaster relief, poverty alleviation and other public welfare and charitable affairs. China Gas Charity Foundation is established by the Group and financed by several major shareholders of China Gas. It aims at contributing to the society through providing financial support for public welfare activities each year.

During the reporting year, China Gas Charity Foundation conducted a survey in different regions on the theme "I have a dream" to visit basic rank staff and understand their thoughts and needs. To show consideration to employees in times of emergency, China Gas Charity Foundation donated about HKD1.7 million to help employees affected by floods or employees with hardship during the year.

### Join hands with Zhongran Smart Living to show love

China Gas Charity Foundation embarked upon a study in Baise, Guangxi Zhuang Autonomous Region, during which it visited Baise Chengxi Primary School and Baise Women and Children Centre, and helped Baise Women's Federation sell agricultural products through the e-commerce platform of Zhongran Smart Living. The Foundation also joined hands with Zhongran Smart Living and Baise Zhongran to hold the "love mango" public donation activity, through which the Group would allocate funds to subsidize children in remote and poor mountainous areas as long as people bought mangoes produced in Baise on the platform of Zhongran Smart Living. The Group also donated a batch of computer equipment to Baise Chengxi Primary School to improve the educational conditions, and provided safer and environmentally friendly piped natural gas for the school's canteen, which can save nearly 30% of energy costs.

## Build a Better Community

### Voluntary blood donation activity

The Group launched the “Voluntary Blood Donation Initiative”. A total of about 40 regional management centres and project companies responded to the initiative and organized voluntary blood donation activities, with total blood donation reaching 205,200 ml.



### Parent-children activities for low-income families

Children from low-income families in Hong Kong generally have fewer opportunities to join family activities with their families. 11 volunteers of the Group led a group of families from public housing estates to join the Day Camp in the scenic Wan Tsai Peninsula in Sai Kung. Under the guidance of volunteers, 40 parents and children learned to pitch camps and make the Kongming lamps, and experienced the fun of cooking in the wild. The activity showed care for people who need help in the community, increased the communication between children and their families in a relaxing atmosphere, and strengthened the cohesion of families involved in. Direct participation of employees also helped the enterprise establish closer ties with the society.

After nearly two years of development, China Gas Charity Foundation has gradually explored and formed a public welfare operation mechanism with the characteristics of China Gas. China Gas Charity Foundation has defined the year 2017 as the “China Gas’s Year of Care”, during which China Gas employees and their families will be the recipients of the care. Centering on the theme of “The Dream Sails from Here” and based on the characteristics of business development, China Gas Charity Foundation plans to hold green energy forums, public-welfare sharing salon activities and love plans to gradually expand the Group’s influence in public welfare.

## Overview of Sustainable Development

<b>Economic performance</b> 	<p>330 city piped gas projects, which is the largest number in China</p> <p>14 long-distance natural gas pipeline projects</p> <p>580 compressed/liquefied natural gas refilling stations</p> <p>92 LPG distribution projects</p> <p>Pipeline gas sales amounting to 12,407 million cubic meters</p> <p>Turnover amounting to about HK\$31.993 billion</p>
<b>Environmental protection</b> 	<p>18 distributed energy resource projects having been constructed and put into operation</p> <p>12 ongoing or upcoming distributed energy resource projects</p> <p>No case of violation of any regulations related to emissions or environmental impact</p>
<b>Employment and labour standards</b> 	<p>No case of death in line of duty</p> <p>Work injury rate for male employees standing at 0.52 per 1,000 workers</p> <p>Work injury rate for female employees standing at 0.66 per 1,000 workers</p> <p>100% of employees having been trained</p> <p>An average of 6.6-87.5 hours of training for employees of different ranks per year</p> <p>No case of offense relating to employment and labour practices</p> <p>No case of offense relating to child labour or forced labour</p> <p>No gender, race, age, health-related discrimination in the recruitment process</p>
<b>Operational practices</b> 	<p>Rate of contract performance by suppliers standing at 100%</p> <p>200 suppliers having been allowed to be registered with China Gas Procurement Network</p> <p>100% of suppliers having been certified to environmental and occupational health and safety management system</p> <p>37 complaints related to the services of project companies having been all properly handled</p> <p>No case of violation of any regulations relating to product liability</p>
<b>Community investment</b> 	<p>Donation amounting to more than HK\$1,700,000</p> <p>528 hours of voluntary work, 123 volunteers participated, 578 people benefited</p>

## Content Index

HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>A1 Emissions</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to air and greenhouse gas emissions, discharges into water and land, and generation of hazardous and non-hazardous waste.	G4-DMA-b G4-EN29	E1.1, E1.2, E1.4, E1.6	Build a green future
A1.5	Description of measures to mitigate emissions and results achieved.	G4-DMA-b	E2.7	Reduce emissions
<b>A2 Use of Resources</b>				
General Disclosure	Policies on the efficient use of resources, including energy, water and other raw materials.	G4-DMA-b	E2.2	Build a green future
A2.3	Description of energy use efficiency initiatives and results achieved.	G4-DMA-b	E2.5	Improve resource use efficiency
<b>A3 The Environment and Natural Resources</b>				
General Disclosure	Policies on minimising the issuer's significant impact on the environment and natural resources.	G4-DMA-b	E4.1	Build a green future
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	G4-DMA-b, G4-EN12	E4.2	Protect environment and natural resources

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HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>B1 Employment</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to compensation and dismissal, recruitment and promotion, working hours, rest periods, equal opportunity, diversity, anti-discrimination, and other benefits and welfare.	G4-DMA-b, G4-SO8	N/A	Create an ideal working environment for employees
B1.1	Total workforce by gender, employment type, age group and geographical region.	G4-10-a, G4-LA12	S2.13	Establish a comprehensive employment management system
B1.2	Employee turnover rate by gender, age group and geographical region.	G4-LA1	S2.31	Establish a comprehensive employment management system

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HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>B2 Health and Safety</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to providing a safe working environment and protecting employees from occupational hazards.	G4-DMA, G4-SO8	S2.17	Protection of employees' health and safety
B2.1	Number and rate of work-related fatalities.	G4-LA6	S3.7	Protection of employees' health and safety
B2.2	Lost days due to work injury.	G4-LA6	N/A	Protection of employees' health and safety
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	G4-DMA-b	S2.18, S2.20, S2.21, S2.29	Protection of employees' health and safety, Caring about staff's well-being
<b>B3 Development and Training</b>				
General Disclosure	Policies on improving employees' knowledge and skills for discharging duties at work. Description of training activities.	G4-DMA-b, G4-LA10	S2.25	Encourage staff to develop themselves
B3.2	The average training hours completed per employee by gender and employee category	G4-LA9	S2.26	Encourage staff to develop themselves

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HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>B4 Labour Standards</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to preventing child and forced labour.	G4-DMA-b, G4-SO8	N/A	Prohibition of child labour and forced labour
B4.1	Description of measures to review employment practices to avoid child and forced labour.	G4-DMA-b, G4-HR5-c, G4-HR6-b	N/A	Prohibition of child labour and forced labour
<b>B5 Supply Chain Management</b>				
General Disclosure	Policies on managing environmental and social risks of the supply chain.	G4-DMA-b	M3.5	Achieve a win-win supply chain
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored.	G4-DMA-b, G4-EN33, G4-LA14	E3.1, E3.3, M3.1, M3.7, M3.8, M3.10	Responsible supply chain management, Fair and impartial system

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HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>B6 Product Responsibility</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to health and safety, advertising, labelling and privacy matters relating to products and services provided and methods of redress.	G4-DMA-b, G4-PR2, G4-PR7, G4-PR8, G4-PR9	S3.1, S3.2, S3.3, S3.4, M2.5, M2.10, M2.13	Ensure reliable and safe operation
B6.2	Number of products and services related complaints received and how they are dealt with.	G4-PR5, G4-PR8	M2.14	Provide quality and innovative services
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	G4-DMA-b	M2.3	Provide quality and innovative services
<b>B7 Anti-corruption</b>				
General Disclosure	Information on: (a) the policies; and (b) compliance with relevant laws and regulations that have a significant impact on the issuer relating to bribery, extortion, fraud and money laundering.	G4-DMA-b, G4-SO5, G4-SO8	S1.3	Corporate governance
B7.1	Number of concluded legal cases regarding corrupt practices brought against the issuer or its employees during the reporting period and the outcomes of the cases.	G4-SO5	N/A	Corporate governance
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	G4-58-a, G4-DMA-b	S1.3	Corporate governance

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HKEX: Environmental, Social and Governance Reporting Guide	Content	Global Reporting Initiative (GRI)	Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR3.0)	Related chapters
<b>B8 Community Investment</b>				
General Disclosure	Policies on community engagement to understand the needs of the communities where the issuer operates and to ensure its activities take into consideration the communities' interests.	G4-DMA-b	S4.1, S4.3, S4.10	Build a better community
B8.1	Focus areas of contribution	G4-EC7	S4.9	Charitable activities
B8.2	Resources contributed to the focus area.	G4-EC1	S2.27, S4.12, S4.13, S4.14	Charitable activities