



# Environmental, Social and Governance Report 2016



**KunLun Energy Company Limited**  
(Incorporated in Bermuda with limited liability)

**昆 侖 能 源 有 限 公 司**

(Stock Code: 00135.HK)



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## ABOUT THIS REPORT

This report is an environmental, social and governance (“ESG”) report of Kunlun Energy Co., Ltd. for 2016, and has been prepared in accordance with the General Disclosure requirements for 2017 under the Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange to report on the company’s economic, environmental and social responsibilities. For the purpose of the report, the following reporting bases are set out:

- **Reporting entity:** Kunlun Energy Co., Ltd.
- **Referents:** Kunlun Energy Co., Ltd. may also be referred to as “Kunlun”, the “company” or “we” in the report.
- **Time frame:** From 1 January to 31 December 2016. In order to ensure that disclosed information is presented on an ongoing basis and warrants comparability, the disclosure time of some information may have been duly adjusted.
- **Scope and boundary:** The management policies, objectives, commitments, and key projects and measures in relation to ESG matters of all Kunlun’s operations.
- **Information sources:** The company’s documentation, statistical reports and summarised information on its subsidiaries’ performance of responsibilities. All information has been reviewed by the company and respective departments. For the list of the company’s subsidiaries covered in the report, please refer to Key Subsidiaries in Note 39 to the company’s 2016 annual financial report released in March 2016.
- **Guide and references:** The report has been prepared in accordance with the General Disclosure requirements for 2017 under the Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange, and is in line with the Guide. For details, please refer to the Index Table of the Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange.





## MATERIALITY ASSESSMENT

Observing the principle of materiality in the Environmental, Social and Governance Report Guide, the company evaluates environmental and social materiality of 11 aspects in the Guide and decides to present the most important matters by two measures: Importance to Kunlun's Commitment to Sustainable Development and Importance to Stakeholders and the Overall Environment and Society. We discuss not only the risk associated with such matters and their impacts on business operation, but also their importance to stakeholders. A materiality assessment will facilitate allocation of internal resources and highlight key matters relating to sustainable development.









The company has mobilised key departments to form an Environmental, Social and Governance Committee (hereinafter referred to as "the ESG Committee"). It interviewed management to gain an understanding of Kunlun's sustainable development strategies and direction, listened to and collected the views of stakeholders and performed a survey of all major subsidiaries to analyse and identify important issues, and determine disclosure focuses based on the results of the assessment.

The matrix below shows how the company prioritises different development aspects. Those closer to the upper-right corner are more important to the company, while those closer to the lower-left corner are less important to the company.



The materiality assessment identified a series of priorities that are of great significance to Kunlun. Among them, Health and Safety, Product Responsibility, Labour Standards, Supply Chain Management and Employment are important on both measures. Development and Training, Use of Resources, Emissions and Anti-corruption are less important to stakeholders and the overall environment and society, but critical to Kunlun's commitment to sustainable development. In light of this, the company considers the above nine aspects as important to the company. The following table lists out the key aspects and their implications for the company and its external environment.



Key aspects	Descriptions
 Health and Safety	The company values its people and is committed to ensuring work safety and reducing production-related risk.
 Product Responsibility	As a key supplier of natural gas for China, the company is obligated to provide safe and clean energy, meet the natural gas needs of urban and rural residents and industries, and maintain social stability and development.
 Labour standards and employment	As a listed company, the company observes the standards of national and local governments on work hours, working conditions, age, compensation and benefits, and other areas, and strives to become a social model.
 Supply Chain Management	As natural gas products are flammable and liquefied natural gas (LNG) is explosive at a low temperature, they are hazardous chemicals and their transportation is a major supply chain risk of the company. Therefore, the company is committed to preventing and reducing the occurrence of accidents.
 Development and Training	Employee training and development is critical to driving the company's continuous reform and innovation and fulfilling the company's mission as a company. The company is committed to creating a sound business and technical team to make sustainable development a reality.
 Use of Resources	The company shoulders an important responsibility of pushing for China's energy transformation. Although natural gas is clean energy in itself, the importance of energy conservation and emission reduction should not be overlooked in daily operation.
 Emissions	As a type of clean energy, natural gas produces far less environmental pollution than coal, petroleum and other fossil fuels. However, reduction and management of solid waste, waste water and exhaust gas from production processes are also the company's basic environmental responsibilities.
 Anti-corruption	Corruption may hinder corporate development and even affect the sound development of society and the economy. The company believes that anti-corruption efforts are important safeguard for strong corporate development.

With the comprehensive end use of natural gas as its principal business, Kunlun focuses on the development of areas including urban gas, natural gas pipeline, LNG/compressed natural gas (CNG) terminals, natural gas power generation and distributed energy, processing, storage and transportation of LNG and liquefied petroleum gas (LPG) sales. As it is not directly involved in natural gas exploration within China, its ecological impact is insignificant. As regards natural gas exploration outside China, it undertakes such efforts only through project investments in oilfield development. Therefore, the Environment and Natural Resources and other aspects are less important. In addition, Kunlun's most important environmental impacts have been presented in Emissions and Use of Resources.

As a state-owned enterprise, Kunlun considers Community Investment as a way to take on its social responsibilities of implementing China's poverty alleviation policies and narrowing the urban-rural development divide. Community Investment can also help Kunlun shape its corporate culture and cultivate a volunteering spirit. Therefore, policies in this regard are expounded in this report.

Please refer to the Index Table to find in this report the respective policies and management measures on each aspect in the Environmental, Social and Governance Reporting Guide of the Hong Kong Stock Exchange.





## KUNLUN'S SUSTAINABLE DEVELOPMENT STRATEGIES

### *"Providing clean energy to serve a harmonious society"*

2016 marks the first year of China's 13th Five-year Plan on National Economic and Social Development (hereinafter referred to as "the 13th Five-year Plan"). As China's economy is still in a critical period of structural adjustment, China is pressing ahead with the reform on energy production and consumption, developing a circular economy, and building a clean, low-carbon, safe and efficient modern energy system.

In addition, given that countries attending the 2015 Paris Climate Change Conference have agreed to the goal of "limiting global temperature increase well below 2 degrees Celsius", low-carbon and low-energy-intensity development shows where the future lies. China has also made its commitment to reducing the emissions of greenhouse gases. It is undertaking to push carbon dioxide emissions to peak in around 2030 or earlier, and cut carbon dioxide emissions per unit of GDP by 60% to 65% from its 2005 level.

According to the government and its energy development strategies, natural gas development is placed as one of the key approaches to promoting green energy development and clean use of energy. In light of this, the demand for natural gas will sustain a stable growth. As the financing platform and investment vehicle for Kunlun's parent company's (CNPC) natural gas business and a management platform for CNPC's natural gas utilisation business, Kunlun is tasked with the mission to tap into and expand the natural gas end market. It should play an active role in China's energy transformation and commitment to the reduction of greenhouse gas emissions.

Kunlun's sustainable development strategies aim to live up to the ultimate goal of bringing reasonable returns to shareholders while reducing greenhouse gas emissions. The company has always dedicated itself to achieving a balance between economic development and emission reductions as a way to demonstrate its worth. We have established and implemented development concepts characterised by safety and environmental protection, compliance, cooperation and sharing and open integration, making "providing clean energy to serve a harmonious society" the company's mission. "Providing clean energy" demonstrates Kunlun's goal of putting energy conservation, emission reductions



and clean production in practice, providing customers with green and environmentally-friendly energy, and sustaining an unrelenting improvement of its health, safety and environmental performance. "Serving a harmonious society", on the other hand, highlights the company's commitment to putting people first, maintaining lawful operation, jointly building a cooperative society with stakeholders and fulfilling its economic, political and social responsibilities.



Kunlun is committed to pushing for the replacement of gasoline with natural gas and maximising the value chain of natural gas and LPG, so that natural gas and LPG fuels can be used to the maximum extent in road transportation, shipping, power generation and other areas. The company is confident that this effort is of great significance to China's energy restructuring, energy conservation and emission reduction and climate change responses.

On the other hand, although the consumption of natural gas, a highly-efficient, clean energy source, will rise rapidly, China faces a prominent problem of seasonal uneven natural gas consumption resulting from its natural gas consumption structure. Far more natural gas is consumed in winter than other seasons. This makes a stable supply of natural gas a key responsibility for people's livelihood and regional development, as well as a major prerequisite for social stability and harmony.

Bearing in mind its mission, the company will continue to develop and improve its health, safety and environment protection system, reduce environmental and safety risks in its operations, comply with national and local laws, regulations and standards, and fulfil the fundamental responsibilities of a listed company. With regard to human resources, the company will build an outstanding business and technical team that drives growth and sustainable development in the future.







## ENVIRONMENT, HEALTH AND SAFETY

### 1.1 Kunlun's health, safety and environmental protection system

As one of the key suppliers of natural gas for China, the company has a considerable number of operation locations, serving a variety of customer groups and operating in complex environments. With regard to Kunlun's urban gas business, its gas network covers urban areas with large populations and complex environments. This entails management difficulties and high risk.

Kunlun attaches great importance to environmental protection and has put in place environmental protection principles that are people-oriented, prioritise environmental protection, put prevention first and initiate comprehensive treatment. It fully implements its health, safety and environmental (HSE) management system, vigorously promotes clean production, and builds a long-term environmental protection mechanism to create harmony between energy and the environment. It strives to achieve the HSE goal of "zero quality deficiencies, zero health injuries, zero safety accidents, zero environmental pollution, and reduced energy consumption in production", fulfil its social responsibilities and build itself into an environmentally-friendly enterprise.

#### 1.1.1 Kunlun HSE committee

Kunlun has formed a top-down, mature HSE (Production Safety) committee that is responsible for managing the work related to health, safety and environmental protection. The HSE committee holds quarterly meetings to discuss and review the performance of environmental protection work, and decide on key safety and environmental matters. The committee exercises unified leadership over and centralised management of all safety and environmental protection affairs, while its affiliates are responsible for the safety and environmental protection affairs within their respective jurisdictions. Kunlun's subsidiaries at all levels have set up safety and environmental protection departments to allocate safety and environmental protection management personnel, enhance safety and environmental protection management and supervision, and hold monthly meetings to keep track of the latest status of safety and environmental protection affairs. In addition, Kunlun has set up a safety supervision centre governing six safety supervision stations to perform supervisory roles by region, and review, supervise, check and guide the HSE performance of Kunlun's business operations.

Kunlun has set up and improved a sound safety and environmental management system. Kunlun's entities at all levels have signed an agreement on safety and environmental protection responsibilities that specifies safety and environmental protection indicators and performance review mechanisms. They are also subject to annual assessments. The company put in place an accountability system for safety and environmental protection affairs, subjecting safety and environmental protection responsibilities to entities with jurisdiction, and integrated safety into daily and business operations. This helps the company execute the accountability system to the greatest extent possible, whether horizontally or vertically, build a safety and environmental protection culture and effect joint, comprehensive management.



In order to ensure top-down execution of the HSE system, the company carried out a six-level safety supervision and inspection mechanism that consists of semi-annual inspections, quarterly inspections, monthly inspections, weekly inspections, team inspections and tour inspections. Inspection results are linked to performance reviews to facilitate the execution of the accountability system for safety and environmental protection. The company analyses key safety and environmental risks in each operating site and requires those sites to propose improvement measures and supervise the execution of such measures. CNPC, Kunlun's parent company, conducts two inspections on the company each year, and based on the inspections, issues a report with proposed subsequent treatment and improvement measures on Kunlun's safety and environmental protection function. In addition, relevant government authorities also conduct random inspections on Kunlun's safety and environmental protection performance on a regular basis.

With respect to major safety and environmental risks, Kunlun has set up an emergency response plan for different levels of management and determined emergency procedures and measures. It built an emergency command centre to organise regular emergency drills and strengthen emergency response capabilities. In addition, the company formulated a 20-character work reminder and emergency response guidelines to provide enhanced guidance for emergency response work and improve employees' emergency response capabilities. The company formed a maintenance and emergency repair team, formulated maintenance and emergency repair plans for various risks, and strengthened maintenance and emergency repair exercises and training to unrelentingly improve assessments and enhance maintenance and emergency repair capabilities.

### 1.1.2 HSE guidelines

Kunlun's HSE guidelines are centred on people, prevention, management commitment, full participation, clean production and continued improvement. By putting such guidelines into practice, Kunlun aims to achieve the goals of zero quality deficiencies, zero health injuries, zero safety accidents, zero environmental pollution, and reduced energy consumption in production.

- **People-oriented:** HSE matters should be considered before any decisions are to be made. The health and safety of employees and local residents take precedence over everything else.

#### HSE objectives:

- **Zero quality deficiencies**
- **Zero health injuries**
- **Zero safety accidents**
- **Zero environmental pollution**
- **Reduced energy consumption in production**





- **Prevention first:** Kunlun makes it its priority to prevent accidents, setting goals and providing adequate resources for the purpose of ensuring total compliance with HSE guidelines and objectives.
- **Management commitment:** Abiding by state laws and regulations, as well as relevant standards, Kunlun strives to achieve clean and safe production, practise “Caring Leadership”, fulfil “Top-down Responsibilities”, effect “Jurisdictional Management” and adhere to the “Nine HSE Administrative Principles” of CNPC to ensure continued improvement of the company’s overall performance in respect of quality, professional health, safety and environmental management affairs.
- **Full participation:** All employees are required to observe the HSE guidelines in their work; Kunlun strives to raise the commitment awareness of its employees, residents and contractors through educational activities and training, and create a HSE culture.
- **Clean production:** Kunlun is committed to energy conservation and emission reduction, as well as pollution reduction, and provides customers with green and environmentally-friendly energy to continue to improve its HSE performance.
- **Continued improvement:** Hidden perils of accidents must be eliminated in a timely manner; all accidents and incidents must be reported, analysed and handled in a timely manner.

### 1.1.3 2016 priorities

In 2016, Kunlun made risk control its priority, and fully implemented the safety and environmental protection accountability system in accordance with the safety and environmental protection requirements that underline four key players and four critical actions. It upheld strict supervision, addressed both the symptoms and root causes of a problem, fully understood the urban gas business and carried out three critical tasks, i.e. assessments of employees’ safety and environmental protection capabilities, risk identification and control, and HSE standardisation at grassroots operations. Such efforts were designed to continuously enhance safety and environmental performance of all employees, as well as their risk identification and control capabilities.







#### Four key players:

- Leadership
- Site operations
- Grassroots people
- Employees

#### Four critical actions:

- Awareness enhancement
- Risk identification
- Performance of duties
- Implementation of plans and measures

- **Assessments of employees' safety and environmental protection capabilities:**

Kunlun assesses employees' safety and environmental protection capabilities through interviews, examinations, performance reviews and other forms of assessment under the principle of integrating work with safety and environmental protection and in light of actual business needs. In so doing, it aims to identify management weak links, formulate improvement and enhancement measures, strengthen training, and continuously enhance employees' safety and environmental protection capabilities in each business area.

- **Risk identification and control:**

The company carries out in-depth risk identification and control in accordance with the requirements of dynamic risk management, leverages expert guidance and HSE tools and methodologies to the greatest extent possible, specifies risk control policies and improves risk classification prevention and control mechanisms. It effects supervision and monitoring at all levels to ensure continuous improvement of risk control capabilities.

- **HSE standardisation at grassroots operations:**

In order to further consolidate the basic work at the grassroots level and improve grassroots risk management and control capabilities, the company has formulated the *HSE Standardisation Plan for Grassroots Operations*, the *HSE Standardisation Specifications for Grassroots Operations*, and the *Specifications for HSE Standardised Acceptance for Grassroots Operations*. It established leadership, working groups and executive teams to implement the rules. All entities under the company have set up a leadership team to initiate strict implementation of the rules. Grassroots operations that meet the HSE standardisation requirements of the company





are certified onsite while those that fail to do so will be subject to more demanding performance reviews. In so doing, the company aims to ensure that grassroots work is carried out in compliance with relevant rules and requirements and that grassroots risk management and control capabilities are improved continuously.

Kunlun intends to complete the standardisation work within two to three years. After the completion of such work, the company will be able to effectively integrate and manage production and emission data. This will help the company achieve timely feedback in respect of whether production-related gas emissions and sewage discharges have been subject to more stringent pollution control, reduced environmental pollution in production, etc. In addition, the company is able to issue timely warnings and feedback for specific risk exposures, such as storage of hazardous chemicals, special operation approval, on-site monitoring and integrity of key facilities.

## 1.2 Pollutant control

In order to minimise operation-induced environmental pollution, Kunlun expressly requires subsidiaries at all levels to comply with environmental laws and regulations of the countries and regions in which they operate when planning and executing any projects, and meet the overall requirements of environmental, health and safety management systems, policies on clean production technologies, and measures for environmental risk management and total emissions control of Kunlun and its parent company, CNPC. Potential environmental impacts should be considered for project and development planning. Project analysis, prognosis and evaluation should be carried out so that actions and measures aimed to prevent or mitigate adverse environmental impacts can be developed. With regard to projects that are subject to environmental impact assessments pursuant to state regulations, the company will mobilise



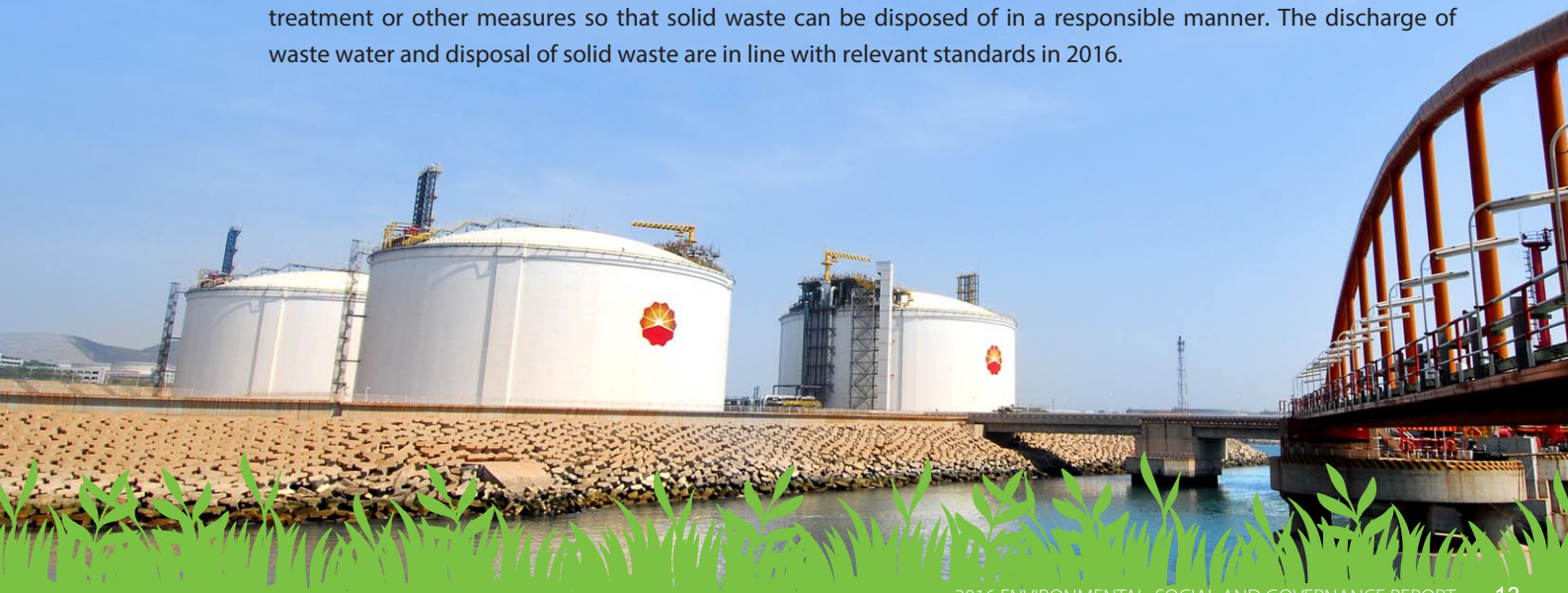
resources to perform such assessments, and follow relevant rules and instructions to file for approval for such projects. In addition, with respect to overseas investment and M&A projects, Kunlun requires environmental analyses to be performed as the basis for the approval of feasibility reports.

### 1.2.1 Exhaust gas management

Kunlun exercises strict control over exhaust gas emissions and is strengthening gas loss examination. Under general circumstances, Kunlun produces no exhaust gas in its production processes; its exhaust gas mainly originates from inspection, maintenance and repair processes, emissions caused by accidents and fugitive emissions. In order to reduce gas loss, the company strengthened process management and made efforts to recycle exhaust gas; enhanced inspection and surveillance and used pipeline inspection vehicles to improve leak detection; enhanced old pipeline safety through internal anticorrosion coating; deployed cooking oil fume purification devices to treat kitchen oil fumes and reduce emissions of pollutants; and placed gas emission monitoring equipment at torch vents to provide feedback as to whether emission standards are met. With regard to project construction, the company ensures that environmental protection facilities and main engineering works are designed, constructed and put into operation at the same time, and that HAZOP protocols are observed to the extent necessary for improving efficiency and executing clean production processes. The company strives to eliminate and treat hidden hazards, building a system for multi-level management and severity-specific prevention and control to ensure that the emissions of exhaust gas meet certain standards. No significant environmental pollution incidents have occurred throughout 2016.

### 1.2.2 Management of waste water and solid waste

Kunlun's waste water mainly originates from domestic waste water. Kunlun ensures that its discharge of waste water meets relevant standards by taking such measures as discharging waste water through municipal pipelines sanctioned by local governments. A small amount of production-related waste water is transported to and treated by local qualified water treatment plants with which Kunlun has entered into water treatment agreements. This ensures that the discharge of production-related waste water is in line with laws and regulations. In the case of waste water that may be produced during a potential accident, Kunlun has built a firewater pond in line with state specifications, and prohibits unregulated discharge of waste water. Solid waste mainly comes from construction waste, for which Kunlun entered into agreements with local qualified treatment plants to effect centralised treatment or other measures so that solid waste can be disposed of in a responsible manner. The discharge of waste water and disposal of solid waste are in line with relevant standards in 2016.







### 1.3 Energy conservation and emission reduction


#### 1.3.1 Kunlun's energy structure

Key energy sources and resources used by Kunlun and its subsidiaries include electricity, natural gas, gasoline, diesel, liquefied petroleum gas, coal and water. Electricity and natural gas are mainly used to support the production of LNG plants and CNG parent stations. Gasoline and diesel fuel are mainly used to power office vehicles. Liquefied gas, coal and fresh water consumption is relatively small.

#### 1.3.2 Kunlun energy conservation and emission reduction group

The company has a leading group on energy conservation and emission reduction. Following the merger of Kunlun Energy and Kunlun Gas in 2016, adjustments were made to the original leading group on energy conservation and emission reduction based on changes in company restructures, leadership and departmental organisation. Kunlun's leading group on energy conservation and emission reduction is headed by the company's deputy general manager, with the deputy positions held by senior management personnel. The heads of relevant business departments are members of the group. The office of the group is in the Production and Operation Department, with the general management of the department acting as the director of the office.





Kunlun's subsidiaries set up a three-level management structure – company headquarters, provincial (district) companies and project companies. The Production and Operation Departments at different levels act as business coordinators across various departments for technology popularisation, funding, training and educational activities, as well as other roles in relation to energy and water conservation. Kunlun can thus benefit from a management and operational model under which departmental functions at the headquarters formulate policies to be deployed and distributed by secondary functions for execution by grassroots operations, with business and management departments at all levels subject to performance reviews.

The company's leading group on energy conservation and emission reduction holds regular meetings to study and arrange energy conservation and emission reduction work, and strives to achieve green production, as well as energy and environmental harmony. In April 2016, the company held a special video mobilisation meeting on energy conservation, consumption cuts, cost reduction and efficiency improvement. It made arrangements for relevant work, decided to set up a leading group on energy conservation, consumption cuts, cost reduction and efficiency improvement, and formulated relevant implementation plans. The company's subsidiaries developed detailed enforcement regulations that catered to their specific business needs and conditions. They summarised and highlighted typical cases of and experience in energy conservation, consumption cuts, cost cuts and efficiency improvement every six months, and made them known to the public through the company's website, bulletins and other means. This effort pushed for the progress in energy conservation and consumption cuts.

### **1.3.3 Kunlun's policies on energy and water conservation and emission reduction**

The company has formulated administrative rules and statistical provisions on energy and water conservation. It leveraged an energy and water conservation management system to strengthen statistical analysis for the purpose and provided on-site supervision and guidance for functions with high energy consumption. It took into account the results of such efforts to formulate and promote various performance indicators and plans for energy and water conservation work, which were distributed annually to its subsidiaries at all levels for compliance and implementation.

The company has set specific energy consumption baseline values as performance indicators for its pipeline gas, CNG and LPG businesses, and at the beginning of each year, broke down verified energy and water consumption indicators and energy and water conservation indicators to the extent that it was clear to hold each subordinate function of the company accountable for their respective consumption and conservation performance. The resultant data was included in their annual performance contracts for stringent performance reviews. All functions also broke down the consumption and conservation indicators to regularly review and supervise the performance of their subordinates. They also formulated conservation measures and plans in light of their own needs and conditions.





In addition, the company has completed its accounting and reporting work relating to greenhouse gas emissions for 2013, 2014 and 2015 in accordance with the *Announcement on Key Matters Relating to the Launch of a Nationwide Carbon Credit Trading Market* issued by the General Office of the State Development and Reform Commission and the *Work Plan of CNPC for Greenhouse Gas Emission Accounting and Reporting*.

#### 1.3.4 Key measures in 2016

870



A total of 870 people have been trained. By providing training for grassroots operations, the company made great progress in its work relating to energy conservation, emission reduction and cost reduction.

In 2016, Kunlun organised and held a series of activities, such as a video training classes on the use of the energy and water conservation management system, a training class on the use of the energy conservation module in the pipeline production and management system, an on-site training class on energy efficiency monitoring technology for compressors and an exchange meeting on energy conservation technology for compressors at stations. A total of 870 people have been trained in such activities. By providing training for grassroots operations, the company made great progress in its work relating to energy conservation, emission reduction and cost reduction.

In addition, the company continued to monitor key energy-consuming equipment, and strived to further improve its energy conservation potential through a better understanding of such equipment. It monitored 43 CNG compressors in 2016, with a total of 212 CNG compressors that had been monitored.

On the other hand, Kunlun actively observed the *Implementation Plan of Beijing for Energy Audits of Energy-consuming Enterprises (2015-2016)* and the *Announcement of Beijing on Additional Matters Relating to Carbon Credit Trading in 2016*. All of its entities in Beijing have completed energy audits and carbon emission verifications in September 2016, and identified the company's problems and gaps in terms of energy efficiency and consumption intensity. This paved the way for further enhancing control over energy consumption.

With regard to water conservation, in order to save and manage water resources, the company has upgraded its facilities and promoted water recycling in many operating locations in 2016.





## 1.4 Occupational health and safety

Major threats to occupational health at Kunlun include noises, welding dust, frostbite and heat.

The company attaches great importance to employees' occupational health management, and strives to reduce occupational hazards to employees through measures such as noise treatment, isolation and the use of effective protective equipment and tools. It put in place a dynamic mechanism to identify, prevent and control occupational hazards; improved employees' health monitoring records, formulated an annual health check plan, and ensured that such a plan was executed; and strictly kept track of employees' health conditions through health check records before and during the employment, as well as before the end of such employment. In the case of engineering projects, the company ensured that facilities protecting occupational health and main engineering works were designed, constructed and put into operation at the same time; placed warning signs and warning instructions in Chinese at important and conspicuous places; held education activities on occupational health, enhanced emergency assistance training and drills, and improved employees' capabilities of identifying, preventing and controlling occupational hazards; provided the whole set of safety equipment and personal protective facilities, and distributed earplugs, welding shields, cold weather gloves, cooling items and other protections; and implemented the Level-6 safety supervision and inspection mechanism and ensured that all measures were implemented to protect employees' legitimate rights and interests. No major occupational disease occurred in 2016.





# PRODUCT-RELATED ENVIRONMENTAL AND SOCIAL RESPONSIBILITIES

## 2.1 Environmental and social responsibilities for natural gas supply

### 2.1.1 Pollution reduction and local development



Natural gas is a high quality, efficient and clean low-carbon energy and serves as the most realistic choice to the move to clean energy supply. Increasing the proportion of natural gas in primary energy consumption is not only an essential way to accelerate the development of a clean, low-carbon, safe and efficient modern energy system, but also an effective way to improve air quality and realise green and low-carbon development. At the same time, it bears great significance in the drive to reduce energy consumption, improve people's livelihood and promote development.

As an advocate for and practitioner of a low carbon economy, the company will drive the implementation of China's energy strategies by actively promoting and expanding the sales and application of natural gas.

Kunlun's LNG and LPG businesses have a presence across the country. Used as transportation fuels to replace gasoline, as well as industrial fuels, LNG and LPG are Kunlun's key products under its natural gas business. They are also of great significance to the high-end use of natural gas. Their wide use in the above fields will replace gasoline and coal, further increasing the proportion of clean energy in China's energy structure. With significant benefits from energy conservation and emission reduction, LNG and LPG boast strategic importance to China's energy transformation that necessitates the replacement of coal with natural gas.

The company continued to execute its pipeline networking plan to fulfil its vision of achieving energy transformation, promoting development and growing local economies.





### 2.1.2 Reliable supply of natural gas in winter

As an energy supplier for urban and rural areas, Kunlun shoulders an important social responsibility for providing a reliable energy supply, especially in winter, when energy consumption peaks. A reliable and non-stop supply of natural gas is vital to people's livelihood and social stability, but is a major challenge as well.

In order to provide a reliable supply of natural gas, Kunlun and its subsidiaries strive to optimise the operational models at LNG production and sales sources. With regard to production, a preliminary mechanism to regulate peak demand in a manner conditioned to pipeline capacity has been built. The production and storage capacity during slack seasons is enhanced to ensure the market availability of LNG products in winter, thus warranting reliability of natural gas supplies for enterprises and households. In terms of sales, agreements with own plants and traders are entered into to ensure reliable supply through various sources. Leveraging our own LNG terminals, we were able to balance domestic and overseas LNG purchases to achieve supply reliability and improve air quality.

As of now, Kunlun has not had any major energy supply incidents. This is the result of the company's commitment to fulfilling its environmental and social responsibilities in its products.







## 2.2 Supply chain management

### 2.2.1 Transportation safety management

Transportation poses the greatest supply chain risk to Kunlun. As LNG and LPG are both hazardous chemicals that are flammable and explosive at a low temperature, Kunlun faces high safety risk during transportation. An accident may significantly affect local environments and residents.

In order to ensure transportation safety, Kunlun relies on its own logistics companies and external logistics companies to transport LNG and LPG products. It selects qualified and experienced logistics companies and leverages electronic bolt sealing, GPS satellite positioning and other means to safeguard logistical safety and reliability. With regard to railway transportation, the company maintains strict compliance with China Railway's safety rules to ensure safe transportation of its products. Subsidiaries enter into logistics agreements with transportation companies or traders in the market based on their own needs, and shoulder safety responsibilities during transportation.





### 2.2.2 Supply and equipment procurement management

Procurement is a key component in an enterprise's compliance management. The quality of purchased goods has direct ties with service capabilities and quality at the group level, and is an environmental issue as much as an operational safety issue. Given its impacts on local environments and society, it is imperative that Kunlun ensures the quality of its purchased goods and services, builds and improves a supplier management system and puts in place a trustworthy product supply chain.

In managing the procurement of supplies, Kunlun effects centralised management and assigns clearly-defined responsibilities to functions at different levels. It carries out centralised procurement at the group level for various types of supplies. The company has set up a tendering management committee that coordinates and guides the tender management work of the Supply Management Department. The committee issued the *Measures on Performance Reviews of Supply Management Indicators* to carry out reviews in respect of relevant objectives. The results of such reviews will then determine performance bonuses of the heads of Kunlun's secondary entities. In addition, this practice can intensify supplier management to the extent necessary for selecting excellent suppliers and strengthening quality supervision over purchased products. For important supplies, Kunlun will involve third parties to supervise production. In terms of supply regulation, Kunlun carries out dynamic process monitoring through an information platform on supply procurement management.

With respect to equipment procurement, all affiliates of the company are required to honour China's industrial policies on environmental protection and technical specifications on clean production. Upgrades of and alterations to major equipment should be subject to clean production verification. Equipment in violation of industrial policies of the state or any governing authorities is not to be purchased. The company has a preference for toxic-free or low-toxic raw materials with high resource efficiency, as well as clean production methods, technologies and equipment that produce minimal pollutants.





## HUMAN RESOURCES MANAGEMENT

### 3.1 Kunlun's employment policies

As a large state-owned enterprise and a leader in terms of business and management models and corporate behaviours, CNPC is highly influential in society. As one of its subsidiaries, Kunlun is obligated to play a leading role in labour management by abiding by state laws and regulations, as well as industrial administrative rules, fully respecting and protecting the legitimate rights and interests of employees, creating an equal, diverse and non-discriminatory employment environment, and avoiding employment of child labourers, overtime working and other negative acts that violate relevant laws and regulations. It strives to create a fair and harmonious work environment for employees as a way to build itself into a socially-responsible listed company and uphold a positive social image.

The company has put in place the following overriding employment principles:

**01**

Ensuring that the company's demand for human resources is satisfied to the greatest extent possible

**02**

Retaining and motivating internal human resources to help them realise their greatest potential and improve and expand their human capital

**03**

Developing and managing internal and external human resources to the greatest extent possible to drive the growth of the company



The company formulated the *Administrative Measures of Kunlun Energy Co., Ltd. on Employee Turnover* to enhance and standardise the management of employee mobility, optimise allocation of human resources and achieve orderly and rational movement of employees. In addition, Kunlun has made human resources management requirements for its subsidiaries. Such requirements place controls over the total number of permanent staff, the total number of employees, and labour cost, as well as a need to standardise distribution of employee benefits. It set control objectives for the above three control areas and their corresponding criteria. In addition, Kunlun continues to push for a stronger compensation and benefit system and make it more effective and efficient. It strives to forge stronger ties between wages and performance. For instance, all departments at the headquarters and the heads of Kunlun's subsidiaries make earnings in proportion to their performance. The company has put in place clear policies and standards on employment, employee turnover management, compensations and benefits, insurance, vacations, work time, attendance and other affairs.

The company observes a management structure with three levels, i.e. the headquarters, provincial companies and project companies in a top-down order. Entities at any level can only manage and guide their direct subordinates. In any province, provincial companies are responsible for managing their subordinate project companies in accordance with the policies of the headquarters. With respect to the management of labour relations, the human resources departments of Kunlun's subsidiaries at all levels have designated personnel for affairs relating to employee management and labour relation management.

## 3.2 Employee development and training

### 3.2.1 Development and training policies

Development and training are at the core of human resources management. Kunlun provides employee training and improves incentive mechanisms and career development paths to help employees achieve their personal value. Through training, the company aims to enhance business competence of its employees and nurture talents to meet its various needs. We provide coaching, further study, learning tours and other opportunities to cultivate and train employees in an organised and well-planned manner, so that they can adapt to emerging needs and update their knowledge base, remain competent for job duties of today and tomorrow, and stay responsive to profound changes in knowledge, technological and managerial structures brought by a new round of technological revolution. The ultimate goal is to create a beneficial interaction between employee growth and the development of the company.



Through training, the company ensures that employees possess the knowledge and skills that are essential to fulfil their current jobs on the one hand, and that can prepare them for future, more important positions on the other. In addition, training can reverse the trend of knowledge becoming increasingly obsolete over time and make up for the gap between employees' knowledge and skills and what is constantly expected of them in fulfilling job duties.





**Building a business and management team that caters to the scale and growth of the company**

**Building an outstanding technical team**

## **Two training priorities:**

Kunlun focuses on two priorities in training: (1) building a business and management team that caters to the scale and growth of the company; and (2) building an outstanding technical team. For the first of these, Kunlun aims to cultivate senior management personnel, middle management personnel and grassroots management personnel. In the second of these, it strives to produce a leading technical team by improving the organisation of its gas fuel research institute and its branch institutes.

Kunlun collects information on training needs annually and formulates a training plan at the headquarters level in light of its production and business strategies and objectives. Its subsidiaries then make specific plans and implement them. Kunlun contributes 2.5% of total employee remuneration and benefits as training expenses for the cause.





The company held a Technology Talent Competition and a Labour Talent Competition in 2016. Through the two stages of each competition – theoretical knowledge contests and operational skill contests that lasted three days, the winners of gold, silver and bronze medals were determined. The activities pushed for the progress in such work as employee training and professional skills certification, and effectively improved the overall professional skills of the company.

### 3.2.2 Employee performance reviews

The company carries out regular performance reviews on employees in respect of their achievement and competence. For instance, performance reviews on achievement are carried out every month, quarter, six months or year, based on various indicators such as economic efficiency, business administration and work duties. The results of performance reviews are tied to employee benefits, following the specific rules relevant to the allocation of employee benefits of the business unit. Special awards are given to those who have made outstanding contributions in production, operation, academic research and other areas. The company consults the results of such reviews for consideration of awards, promotion, tutorship and corrective actions.

## 3.3 Anti-corruption

### 3.3.1 Anti-corruption policies

Not only is corruption detrimental to corporate development, but it also affects economic and social development in every aspect. Kunlun honours each and every business partner with honesty, respect and a responsible commitment, giving full respect and fair consideration to its customers, suppliers, contractors and competitors. It opposes all forms of commercial bribery, requires its business partners to comply with its anti-bribery and anti-corruption policies, and prohibits abuses of power aimed at, for instance, seeking private business agreements or providing benefits and gains for relatives.







Pursuant to the policies and regulations on bribery and dishonest acts of CNPC, its parent company, Kunlun pressed ahead with its actions to build a clean and honest administration, as well as its anti-bribery initiatives. It formulated a series of measures and rules to promote integrity and the code of conduct; mobilised supervisory resources to perform ad hoc audits and inspections of major projects and popularised the use of electronic surveillance; and deepened the anti-bribery institutional reform and maintained a high screening momentum to augment deterrence against corruption.

### 3.3.2 Training and monitoring measures

The company has set up the Supervision Department and the Supervision Centre under it to carry out work related to integrity and anti-bribery. The Supervision Centre holds annual meetings on such work and has mobilised management at various levels to make written commitment to upholding integrity.







In July 2016, the company carried out a series of educational activities on professional integrity and ethics for 46 newly-promoted middle management personnel. The activities involve having a collective talk, giving a book on professional integrity and ethics, paying a visit to an educational base dedicated to the cause of anti-corruption and integrity, holding an honesty and self-discipline test, signing a written commitment to upholding professional integrity and ethics, and writing a letter to their family. Participants should hand in an explanation of their understanding of the cause of integrity within one month following such educational activities.

In addition, the company has put in place several anonymous reporting channels, including a reporting hotline, an email box and a postal mailbox. If employees or external stakeholders take notice of any suspicious behaviours, they can report them using those channels. The relevant department and related units will handle each case following the relevant rules of the company.



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## COMMUNITY INVESTMENT



We strive to promote both corporate development and sustainable development of the locations where we operate, and value the importance of the community and people's livelihoods. In order to take up our corporate social responsibility and promote social sustainable development, we participated in volunteer activities and engaged in public welfare activities, providing, among other things, poverty alleviation support and financial aid for students.

The public welfare and community investment activities were organised by the company's Corporate Culture Department. All secondary and tertiary entities have set up special functions for this purpose, and hold quarterly meetings to summarise work results and make plans for future work. The company has formulated guidelines on donation management and the organisation of such activities, which were carried out by its subsidiaries in line with their own conditions under the principles that emphasised the need to save cost, remain practical and improve efficiency. During the reporting period, the company contributed a total of RMB 1.07 million to community welfare programmes focusing on poverty alleviation and support for students, and local needs.

In 2016, the company organised a company-wide tree-planting activity. It provided RMB 600 per year in financial aid each for 100 primary school students from poor families in Yunnan, Sichuan and other places, and bought RMB 98,700 worth of stationery and winter clothes for students. In addition, the company organised 325 volunteer activities of various kinds, such as off-site personnel assistance in the fields of production and business operation, safety and environmental protection, major activities and emergencies, support for disadvantaged groups through living care, information service, psychological counselling and recreational activities, tree planting and gardening, waste disposal, removal of illegal stickers, cleaning and disinfecting public places and green and civilised engineering. Those activities benefited 49,000 people ranging from Kunlun's employees, residents living around the streets and blocks of the organising entities, to students from poor families and gas users.





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Note: As at the end of the reporting year, there were no major non-compliance incidents of the company in respect of pollutants, employment, health and safety, labour standards, product responsibility and anti-corruption.