新天绿色能源股份有限公司
China Suntien Green Energy Corporation Limited

2017
環境、社會及管治報告
Environmental, Social and Governance Report

ABOUT THIS REPORT

I. SCOPE OF THE REPORT

Organizational scope: This report covers China Suntien Green Energy Corporation Limited and organizations under its management.

Timeframe: 1 January 2017 to 31 December 2017. Certain items mentioned are outside the aforementioned timeframe.

Publication cycle: This report is published on an annual basis along with the publication of the Company's annual report.

II. BASIS FOR PREPARATION OF THE REPORT

The report was prepared according to the "Environmental, Social and Governance Reporting Guide of Rules Governing" in Appendix 27 of the Listing of Securities on The Stock Exchange of Hong Kong Limited and in compliance with "core" plan requirements of the Global Reporting Initiative (GRI) standards.

III. EXPLANATIONS ON DATA IN THE REPORT

Financial data in the report are extracted from the annual report for 2017. Other data are extracted from the Company's internal management system and statistics, and partly comprise of data for previous years. Unless otherwise stated, Renminbi is used in this report as its functional currency.

IV. PUBLICATION FORM OF THE REPORT

The report is issued in printed and electronic versions. Visit www.suntien.com or www.hkex.com.hk to download the report. Please call 0311-85278707 if you need a printed version.

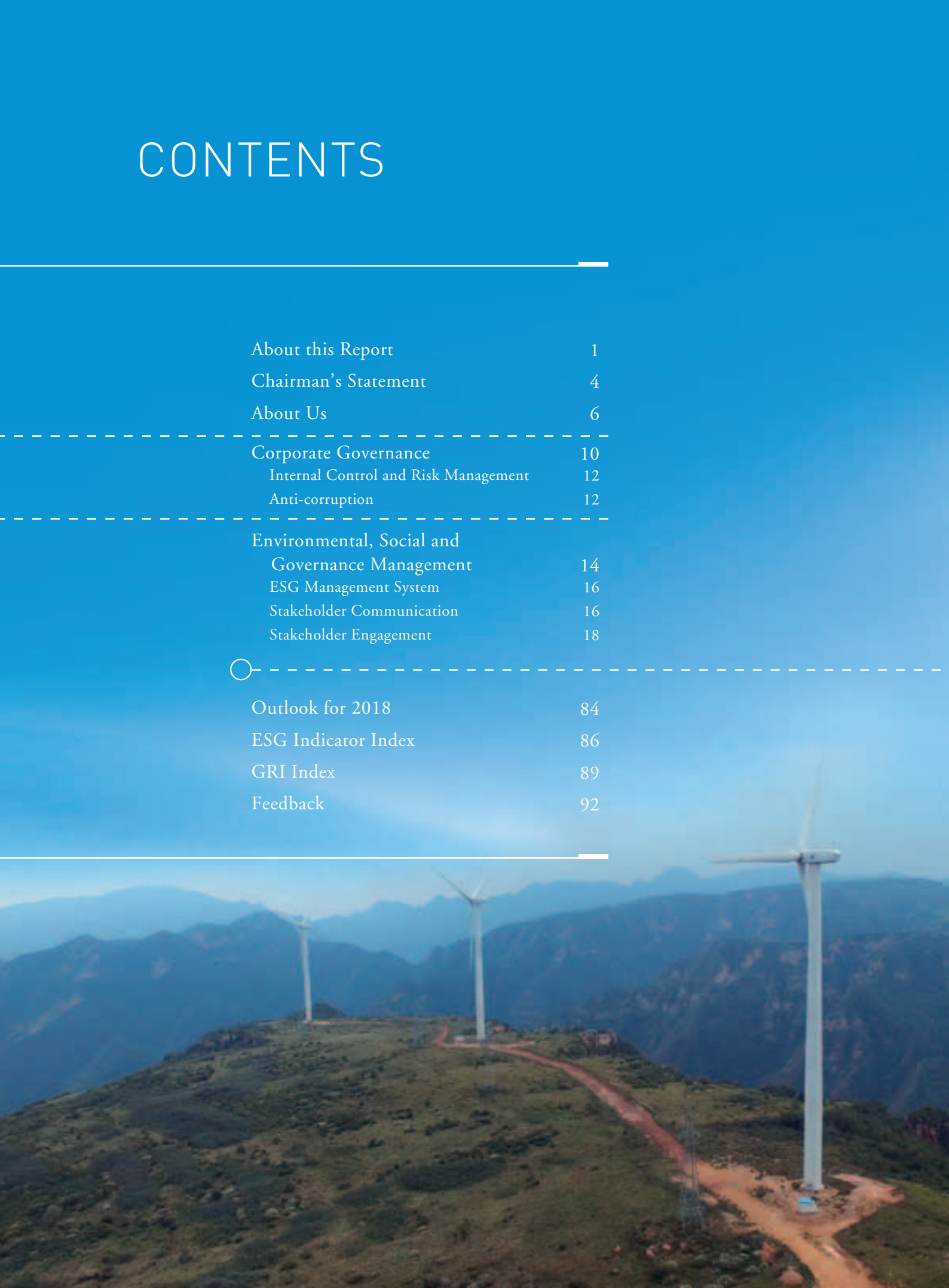
V. EXPLANATIONS ON SHORT NAMES

For convenience, expressions including "China Suntien Green Energy Corporation Limited", "Suntien", "the Company" or "we" are used in the report. Regarding major subsidiaries of the Company, Hebei Natural Gas Limited is referred to as "Hebei Natural Gas" and HECIC New-energy Co., Ltd. is referred to as "HECIC New-energy".

VI. CONTACTS

China Suntien Green Energy Corporation Limited, Office of the Board of Directors
Address: Block A, Yu Yuan Plaza,
No. 9 Yuhua West Road,
Shijiazhuang City,
Hebei Province, PRC
Postal code: 050000

CONTENTS



Tackling Climate Change

- Development of Clean Energy
- Green Upgrades of Contribution Areas
- Participation in Industry Development

Building a Development Platform

- Employment and Attraction
- Training and Education
- Care and Communication

Environmental Impact Control

- Use of Resources
- Waste Management
- Ecological Protection

Steady Supply of Energy

- Safety Management
- Quality Management and Control
- Customer Services
- Technological Innovation

Industry Upstream Cooperation

- Supply Chain Management
- Communication with Suppliers

Contribution to Social Development

- Targeted Poverty Alleviation
- Community Involvement

CHAIRMAN'S STATEMENT

Newly increased consolidated installed capacity of wind power for the year

552.2 MW

Realized power generation of controlled wind farms for the year

6,737 million KWH

Newly increased approved capacity of photovoltaic power generation projects for the year

20 MW

Newly increased natural gas pipelines for the year

903.97 Kilometers

Looking back on 2017, Suntien followed an unprecedented green development path. The specific plans, including the "Ten Requirements Controlling Air Pollution", formulated by the central government based on the strategic initiatives in response to climate changes entered the first stage of assessment period in 2017, while the Beijing-Tianjin-Hebei region faced the most critical period in the adjustment of energy structure in the country. With the continuous promotion of the strategy of "building a beautiful China", Suntien, being the largest clean energy provider in Hebei province and one of the most important natural gas providers, now plays a more and more important role in the process of development of a green society.

Suntien also experienced comprehensive growth for itself in 2017. With its bases in the Beijing-Tianjin-Hebei region, Suntien established six cross-provincial preparatory offices covering Guangdong-Guangxi-Hainan, Sichuan-Chongqing-Tibe and Zhejiang-Fujian-Shanghai region, so as to start to expand its business from the three northern regions with rich new energy resources to the "non-traditional" regions in the south to assist in increasing the proportion of clean energy in these regions. Meanwhile, we steadily promoted the construction of the first offshore wind power project in the northern region, and smoothly implemented the construction of China's first wind power hydrogen production project, which is also the biggest in the world. As more clean energy means are being developed, our supply of clean energy including wind power, photovoltaic power and natural gas is also growing rapidly, and our capacity of clean energy supply for the country will continue to increase in the coming years, which will become the major force of Suntien for driving forward sustainable development of the society.

Externally, Suntien enhanced the communication and interaction with stakeholders in 2017. During the year, we attended the leadership forum on "One Belt One Road" and trade seminars, participated in the formulation of new energy plans for places like Kumul and enhanced communication with key industrial suppliers upstream. Through our extensive exchange activities, we had a clearer understanding on the position of Suntien in the industry and the development requirements of external parties including suppliers, customers and industry partners towards Suntien, and these requirements will be our directions for achieving sustainable development to a larger extent in the future.

With regard of internal development, Suntien focused on the enhancement of enterprise operational efficiency on the basis of safe and high-quality production in 2017. We explored applications of high and new technologies and made use of an unmanned aerial vehicle and data center in the production process, which enhanced the stability of new energy supply of the enterprise, and technological innovation would become Suntien's next focus. At the same time, we offered additional management and training programs in 2017 to enhance employees' capability, promoted energy conservation and emission reduction measures to limit our environmental impact and launched poverty alleviation programmes like photovoltaic poverty alleviation and community engagement work by utilizing our enterprise resources. These activities will lay the foundation for further development of Suntien in the future.

Looking forward to 2018, Suntien will embrace new prospects of green development. With more in-depth implementation of the national "13th Five-year Plan", measures addressing the strategic issues including response to climate changes, green and low carbon development and ecological and civilized construction will be further carried out. Suntien will devote more efforts in the above issues, provide driving force for building a low carbon society and assist in gearing the direction for development, so that we can contribute further for building a green society.

Cao Xin
Chairman

ABOUT US

China Suntien Green Energy Corporation Limited was established on 9 February 2010 with contribution made by the promoter shareholders of Hebei Construction & Investment Group Co., Ltd. and HECIC Water Investment Co., Ltd.. The Company was listed on the Main Board of the Hong Kong Stock Exchange on 13 October 2010. The Group is a leading company in the development and utilization of clean energy in northern China.

The Group is primarily engaged in the exploration and utilization of new energy and clean energy with two major business segments: wind power and natural gas.

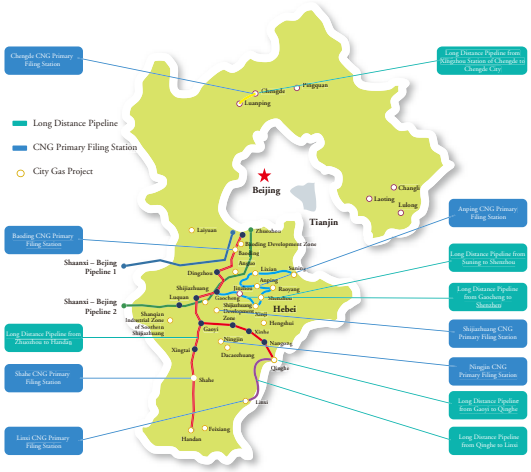
Engaged in the planning, development and operation of wind farms as well as the sale of electricity, the Group owns wind power projects in the regions of Hebei, Shanxi, Xinjiang, Shandong, Yunnan, Inner Mongolia, and others. Based in Hebei, the Group has invested and developed wind power projects across the country and actively seeks suitable investment projects overseas. As of 31 December 2017, the Group had a consolidated installed capacity of 3,348.35 MW as well as interests in an installed capacity of 3,023.90 MW. In 2017, the Group's gross wind power generation was 6,737 million kWh with 2,392 utilization hours.

The Group possesses natural gas transmission and ancillary facilities in Hebei Province, and sells natural gas through natural gas distribution channels. As of 31 December 2017, the Group owned six long-distance natural gas transmission pipelines, nine high-pressure branch pipelines, 29 city gas projects, 16 distribution stations, 10 gate stations, seven CNG refilling stations and seven CNG primary filling stations. In 2017, the Group's natural gas sales volume was 1,879 million cubic meters.

BUSINESS DISTRIBUTION

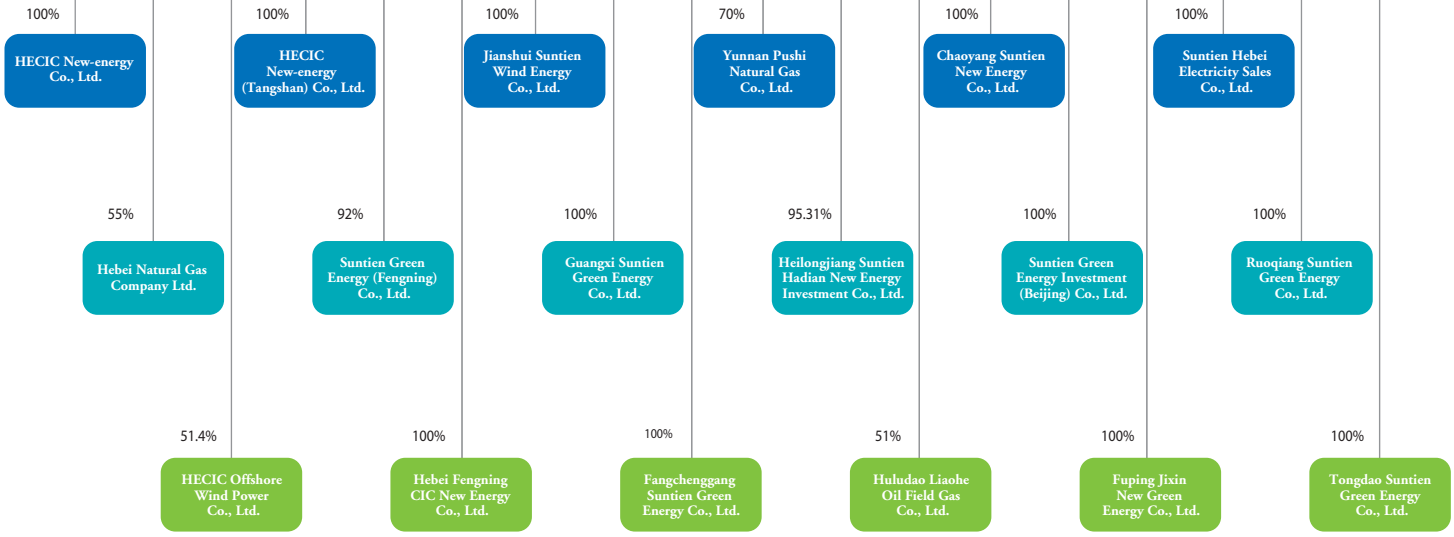
Wind Power and photovoltaic power:

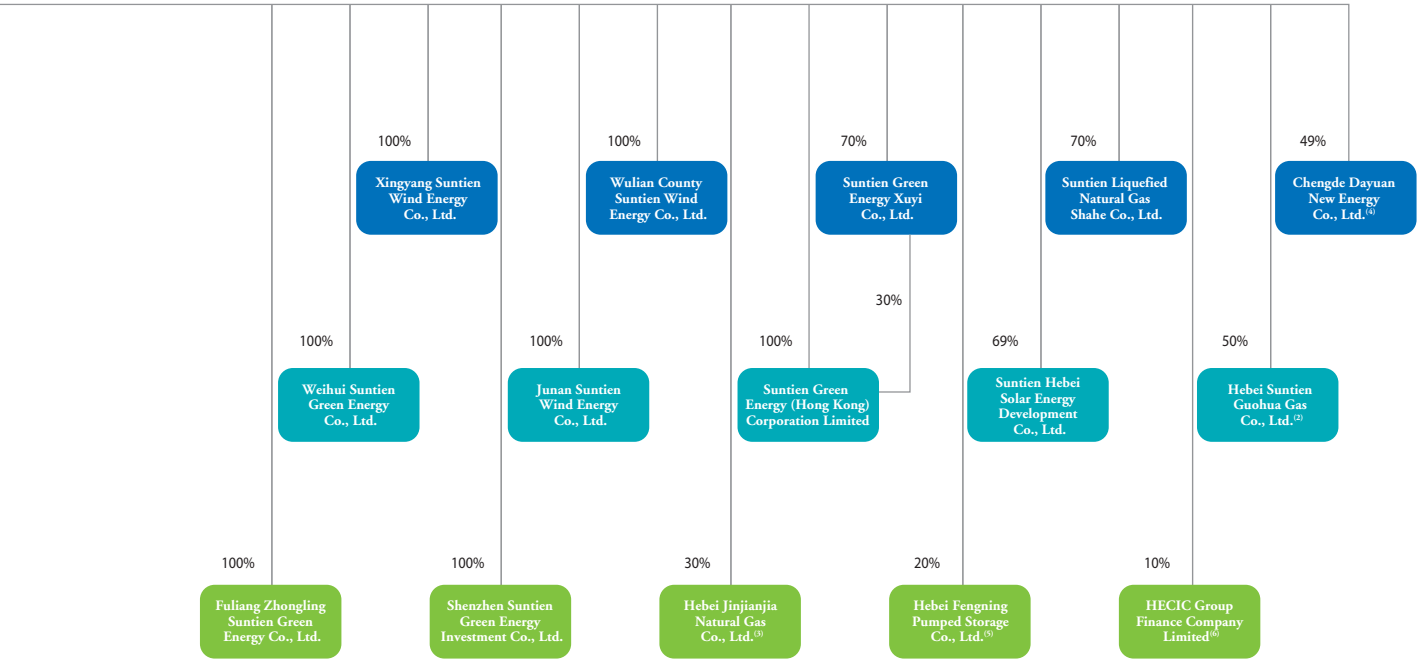
Natural Gas:



ABOUT US

新天绿色能源股份有限公司
China Suntien Green Energy Corporation Limited





Notes:

(1) Please note that the corporate structure chart only includes first-tier subsidiaries of the Company. Subsidiaries of the second tier and below are not listed.

(2) Hebei Suntien Guohua Gas Co., Ltd. is a joint venture of the Company.

(3) Hebei Jinjianjia Natural Gas Co., Ltd. is a joint venture of the Company.

(4) Chengde Dayuan New Energy Co., Ltd. is a joint venture of the Company.

(5) Hebei Fengning Pumped Storage Co., Ltd. is an associated company of the Company.

(6) HECIC Group Finance Company Limited is a long-term investment company of the Company.

CORPORATE GOVERNANCE

According to the provisions of the Company Law of the People's Republic of China, the Securities Law of the People's Republic of China, the Listing Rules and other relevant laws and regulations, regulatory documents and the Articles of Association, the Company has gradually improved the rules on corporate governance and introduced the terms of reference of all professional committees after the listing in 2010. It also completed the amendment of the Articles of Association in 2017 to meet operational and management demands and external regulatory requirements.

CORPORATE GOVERNANCE

The Company has established an excellent structure of internal control and governance. It has established committees for Strategy and Investment, Nomination, Audit and Remuneration and Appraisal under the Board to supervise and inspect the strategy, management appointments, incentive measures, risk control and other aspects of the Company. A Board of Supervisors supervises the internal controls established and conducted by the Board and the senior management. In the "Enterprises of Credit in Hebei Province 2017" contest, Suntien and HECIC New-energy were awarded the title "Enterprise of Credit in Hebei Province" for six and nine consecutive years, respectively.

For the specific responsibilities and composition of the Board, the professional committees under it, and the Board of Supervisors, please refer to the "Corporate Governance Report" in the Annual Report of China Suntien Green Energy Corporation Limited for 2017 (0956. HK).

INTERNAL CONTROLS AND RISK MANAGEMENT

The Company has prepared the Internal Control Manual of China Suntien Green Energy Corporation Limited, which clearly details all the risk points inherent to the Company's operation, its internal control measures and risk point control measures, and the basis of its reasonable and systematic internal control system.

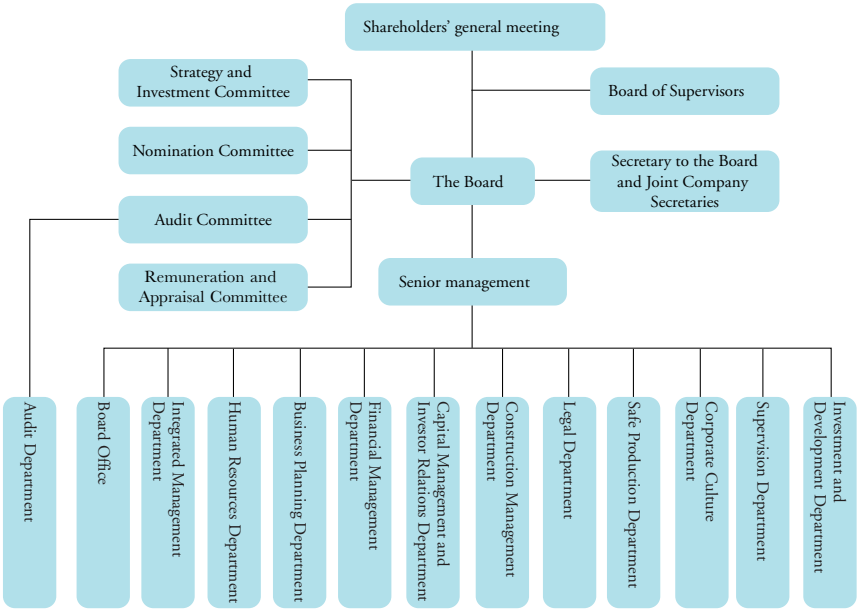
In 2017, the Company focused on the establishment of a comprehensive standardized risk management and control system. All internal control staff members of major Company subsidiaries are required to obtain a certificate before taking their position. The Company newly developed and revised relevant systems such as its Comprehensive Risk Management Measures, System Management Measures and Comprehensive Risk Management Manual, focusing on their dissemination through training, and gradually improving the monitoring of risk warning indicators.

ANTI-CORRUPTION

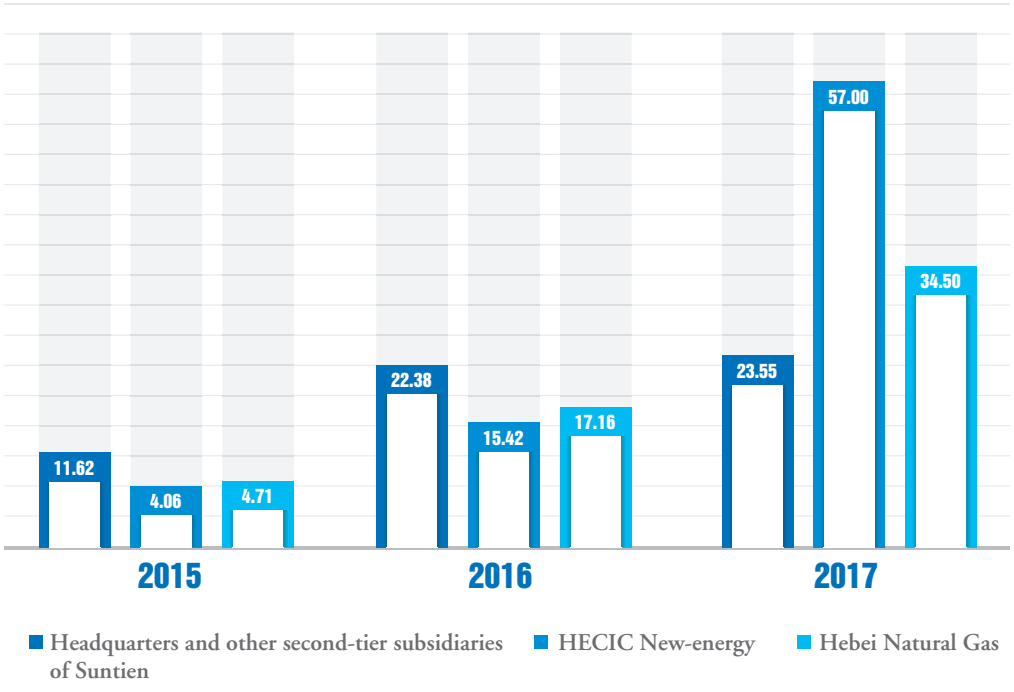
The Company attaches great importance to clean administration and takes rigorous action against corruption in any form. On the basis of relevant laws and regulations and in view of its actual situations, the Company developed a series of policies and relevant management measures such as the Management Measures for the Prevention of Business Corruption (Trial Implementation), the Management Measures for the Work of Supervisors for Construction of Honest Administration (Trial Implementation), the Tentative Measures for the Implementation of the Responsibility System for Construction of Honest Administration, the Detailed Accountability Rules for the Responsibility System for Construction of Honest Administration, the Tentative Measures for Efficiency Monitoring, the Tentative Administrative Procedures for Power Monitoring Mechanism and the Implementation Measures for the Knowledge Examination of Disciplinary Regulations of Leaders of Companies to be Promoted, to enhance its ability to prevent corruption at the source. It required people who are responsible for key processes and/or in key positions to sign a Commitment Letter of Prevention of Business Bribery with business partners to regulate the behavior of both parties.

The Company established a business bribery reporting box and reporting hotlines. To further reinforce clean administration and enhance the self-discipline and awareness of staff, the Company also integrated the development of a clean and honest administration into its annual assessment system, categorized and assessed the level of risks, and established a mechanism for reminding, warning and educating about the risks. It enhanced staff members' anti-corruption awareness through education. Through these and other efforts, the Company maintained a healthy, fair and transparent business environment. During the reporting period, HECIC New-energy experienced three anti-corruption related cases, of which two have been closed and reported, and one is expected to be completed in 2018.

Corporate Governance Structure



Hours of anti-corruption training provided by Suntien to each person from 2015 to 2017



ENVIRONMENTAL, SOCIAL AND GOVERNANCE MANAGEMENT

As an important clean energy supplier in northern China, we wish to make a greater contribution to adjusting the social energy structure and alleviating environmental problems. We regard our social responsibilities as integral to and a natural extension of our operations. The introduction of policies for the integrated development of Beijing, Tianjin and Hebei, and various plans for environmental and economic enhancement, have created a new round of opportunities and challenges to our development and management capacities. We will further optimize the ESG management system and implement the ESG management results to enhance our sustainable development abilities, and will strive to play an important role in the sustainable development of society.

ENVIRONMENTAL, SOCIAL AND GOVERNANCE MANAGEMENT

ESG MANAGEMENT SYSTEM

The focus of our ESG management system has always been on ESG quantitative performance management. As one of the first mainland enterprises to adopt the Hong Kong Stock Exchange's Environmental, Social and Governance Reporting Guide, in 2014 we preliminarily established the Suntien Green Energy ESG Indicator System based on the requirements for disclosure of ESG information. Subsequently, under the leadership of the Board, we built an ESG quantitative information management system covering all important business units. In 2017, in view of the overall requirements for management system standardization, we reviewed the work mechanisms and processes of ESG information disclosure and the Company's internal management, and gradually improved the daily management and control of key ESG topics based on ESG quantitative management.

With the Company undergoing rapid development and the new energy industry working under an improving policy environment, we will give more attention to the orientation of sustainable development and work closer with the internal ESG management of the Company. In 2018, the PRC's new energy industry will continue to focus on the areas of wind and solar (photovoltaic) power. We will make better use of our capacities as a new energy supplier to evolve an ESG management system that will serve as a foundation for the Company's sustainable development.

STAKEHOLDER COMMUNICATION

Suntien's stakeholders play a vital role in the Company's sustainable industrial and social development. Their decision and actions can make a direct impact, and by responding to their needs in a timely manner, Suntien gains a continuous driving force for its development. Suntien also makes direct and indirect impacts on its stakeholders through the products and services we provide and the projects we construct and operate. During the course of operations, stakeholder participation can help Suntien to correctly assess the impact our decisions make, to make needed adjustments, and to more fully realize the potential of mutual sustainable development.

By reviewing the stakeholders affected by Suntien's operations, we have identified them by their relative importance, their manner of participation, and the corresponding measures taken to meet their needs. Effective communication with stakeholders helps us to understand the needs of both parties and creates a basis for discussion of future cooperative measures – a matter which has gradually assumed greater importance among all our departments.

Channels of stakeholder communication and their focus

Type of stakeholders	Needs	Response Measures	Communication Channels
Shareholders	• Continuous stable investment returns • Timely information disclosure • Enterprise operation in compliance with laws and regulations	• Improve business diversity • Establish a system for regular information disclosure • Improve internal compliance system	• Annual reports and corporate announcements • Information dissemination channels including roadshows
Employees	• Decent working environment • Ample opportunities for career development • Competitive remuneration packages • Sound health and safety protection	• Improve internal management systems such as staff recruitment and promotion • Enrich staff's daily life • Provide diversified employee welfare	• Internal website • Internal corporate publication • Suntien WeChat public account
Suppliers	• Fair, just and open procurement process • Punctual fulfillment of contractual obligations	• Ensure transparency in procurement process and receive internal and external supervision • Reasonable management and control of cash to ensure timely payment	• Announcements and notices for procurement and tender on governmental websites • Corporate corruption reporting hotline
Customers	• Continuous, reliable and safe supply of natural gas • Timely response to customer demands • Service quality improvements	• Establish a comprehensive safety supervision an response system • Improve customer complaint handling process, establish a responsibility identification system for customer complaints • Formulate a standardized service manual	• Regular community promotions for safe use of gas • Visiting dissatisfied customers • Conduct customer satisfaction surveys
Government	• Drive local and surrounding industry development • Enterprise operation in compliance with laws and regulations	• Provide job opportunities and pay taxes at the location of operations • Cooperate with government supervision and improve internal compliance monitoring • Ensure compliance with laws and regulations regarding environment, safety and integrity	• Participate in government meetings and regularly visit the government • Receive governmental supervision
Community	• Contribute to community development • Participation in community activities to maintain good communication	• Improve local infrastructure construction in terms of road construction and power grid construction • Aid rural development in terms of assistance provided to designated persons • Maintain good communication with local residents and herdsmen	• Survey of community representatives • Visits in daily operation
Banks	• Good creditworthiness and strong ability to pay debts • Stable business development	• Pay debts on time to maintain creditworthiness • Strengthen cooperation with domestic and foreign banks	• Regular direct communication
Academic institutions	• Continuous investment in innovation • Strengthen cooperation with academic institutions to improve ability to apply research results	• Increase internal R&D investment, improve intellectual property and innovation management • Increase cooperation and exchanges with universities, colleges and other research institutions	• Cooperation fairs

ENVIRONMENTAL, SOCIAL AND GOVERNANCE MANAGEMENT

STAKEHOLDER ENGAGEMENT

In 2017, we continued to use questionnaires to help gain a fuller understanding of stakeholder comments on our relevant ESG work and to receive stakeholder advice. In these, we frequently referred to the key concerns of domestic and overseas new energy enterprises on the management of sustainable development, to relevant policies on new energy released by national and local governments, and to research reports on the industry. We identified key ESG topics in 2017 and invited all stakeholders to comment on them and on our actions in this area.

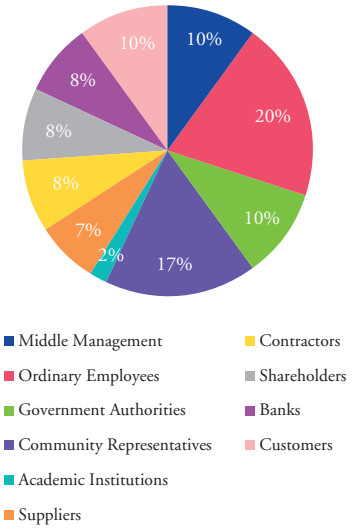
To improve the effectiveness of the replies to the questionnaire, we introduced it and an online survey simultaneously in 2017. Participating stakeholders can directly reply by either filling in the paper questionnaire or by scanning a QR code with their mobile phone. We also adopted more open method of issuing and collecting, and eventually collected 183 completed questionnaires – a significant increase compared to 110 in 2016. We believe that more questionnaire replies will increase the accuracy of the survey results and bring us closer to the real thoughts of stakeholders. We also issued questionnaires to the Company's senior management to gain understanding of how various ESG topics have impacted Suntien, and to obtain their suggestions regarding the Company's decision-making, actions and information regarding sustainable development.

As compared with the surveys in the past two years, 96% respondents expressed interest in learning more about Suntien's sustainable development work, compared to 95% in 2015 and 91% in 2016. A total of 89% of respondents thought that the ESG report could aid in their understanding of our sustainable development work and better inform them about the Company's sustainable development practices. Ecological protection, staff development and safe production have been major topics for three consecutive years, and stakeholder knowledge in these areas has steadily improved year by year. Industry development, clean energy supply, ecological protection, energy conservation and emissions reduction were the issues of most concern to stakeholders in 2017. Their levels of concern about operations related issues such as responsible supply chain, anti-corruption, compliance and performance optimization remain stable.

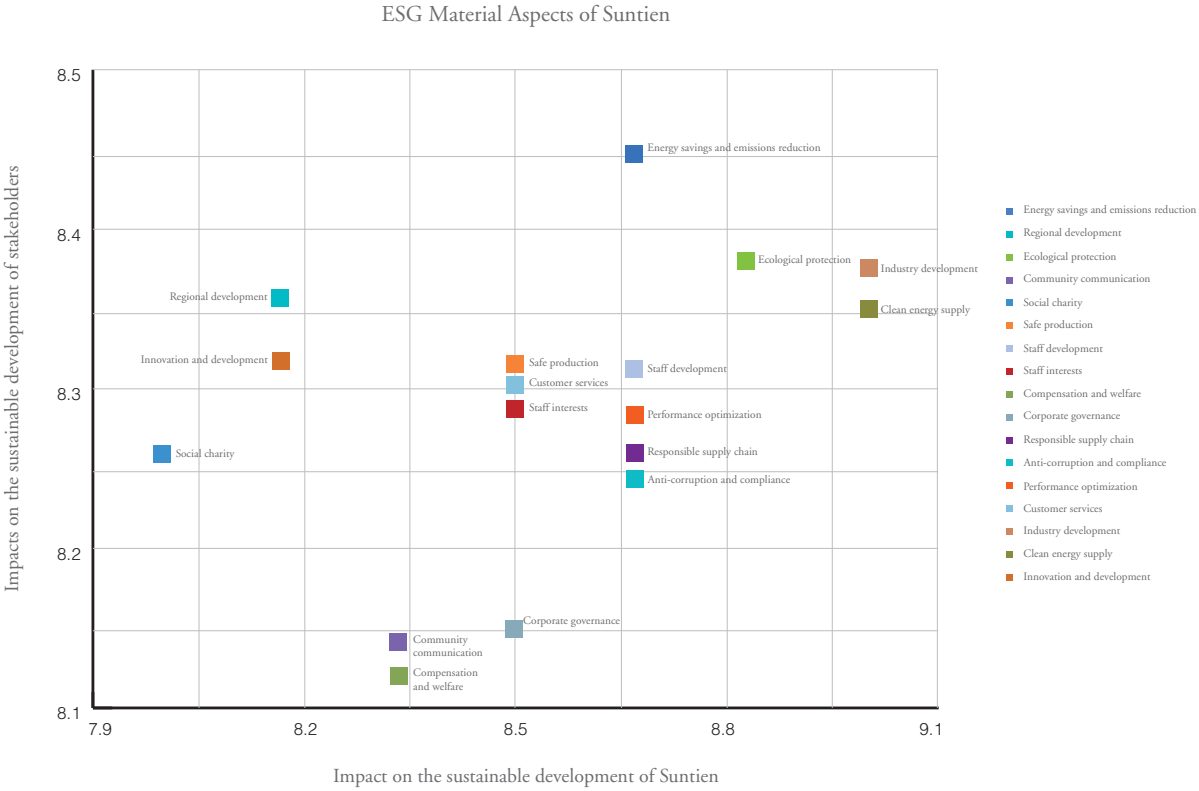
The stakeholders recognized Suntien's sustainable development work and gave suggestions about technical innovation, communication, foreign cooperation and public participation. They indicated a desire for the Company to enhance its comprehensive domestic and international cooperation and publicity efforts, improve the frequency of external communications, and actively convey the concept, orientation and content of Company actions through information disclosure and regular meetings, so that stakeholders may better understand the Company's sustainable development efforts.

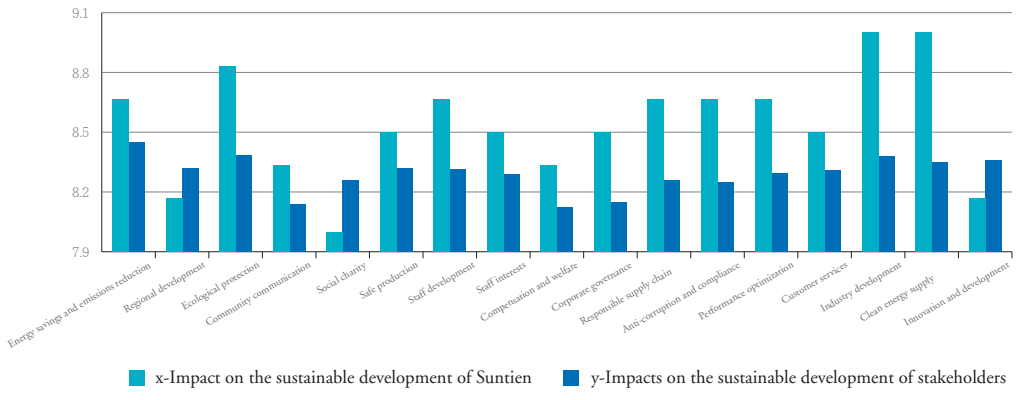
The stakeholder survey results provided useful references for future adjustments to our sustainable actions. They can give us a more accurate perception of changes in social demand, and subsequently make targeted adjustments to the focus of management and control to meet those demands. The results will also have a direct effect on the content of our ESG information disclosures. This report includes targeted disclosures on the topics of most concern.

Percentages of stakeholders included in the 2017 Survey



Matrix of ESG Material Aspects in 2017





TACKLING CLIMATE CHANGE

That climate change poses a major challenge to human development has become a global consensus. To more effectively mitigate and control the negative impacts of rising temperatures, all signatories to the Paris Agreement, including China, have developed plans to reduce greenhouse gas emissions, adjust the social energy supply structure and increase the proportion of clean energy. For Suntien and the new energy industry in general, tackling climate change is fundamental to our development, and is the source of both opportunity and challenge.

TACKLING CLIMATE CHANGE

DEVELOPMENT OF CLEAN ENERGY

Although new energy enterprises such as Suntien are benefiting from the improving development environment, the need still exists to review our business's impact on the green development of society. In early 2017, following on from the State Council's 13th Five-year Plan's emphasis on "adhering to green development and striving to improve the ecological environment", the National Energy Administration issued the "13th Five-year Plan for Energy Development" and "13th Five-year Plan for Renewable Energy Development", which strive to further improve the market share of renewable energy through policy and industrial coordination, to alleviate the constraints arising from abandoning wind and photovoltaic power generation through management and technical innovation, and promote the optimization and upgrading of the energy structure in the society. The broad development prospects for the industry also impose new requirements for all the relevant enterprises. To this end, Suntien must optimize its industrial structure and expand its upstream and downstream channels to meet diverse needs for new energy. The Company also needs to improve its basic abilities and operational efficiency through innovative development and standardization, to ensure that it keeps pace with society's green transformation.

Objectives under the 13th Five-year Plan for Renewable Energy Development

By 2020, installed hydropower capacity will reach 380 million KW; installed wind power capacity will reach 210 million KW; installed solar power capacity will reach 110 million KW; installed biomass power capacity will reach 15 million KW; and total geothermal heating and utilization volume will reach 42 million tons of standard coal.

Objectives under the 13th Five-year Plan for Energy Development

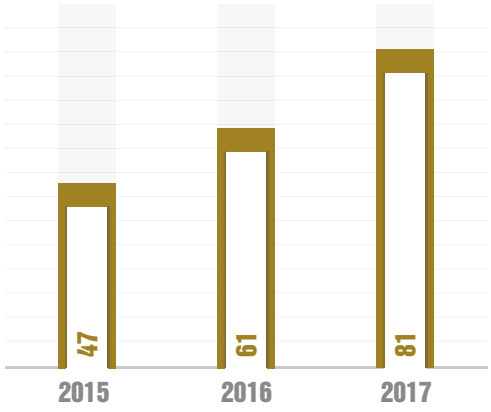
- The percentage of non-fossil energy consumption will increase to more than 15%, the percentage of natural gas consumption will increase to 10%, and the percentage of coal consumption will decrease to below 58%.
- The growth of non-fossil energy and natural gas will be three times that of coal, accounting for approximately 68% or more of total energy consumption growth.
- Through the development of renewable energy, carbon dioxide emissions will be reduced by approximately 1.4 billion tons; sulfur dioxide emissions will be reduced by approximately 10 million tons; nitrogen oxide emissions will be reduced by approximately 4.3 million tons; smoke and dust emissions will be reduced by approximately 5.8 million tons; and water consumption will be reduced by approximately 3.8 billion cubic meters annually.

TACKLING CLIMATE CHANGE

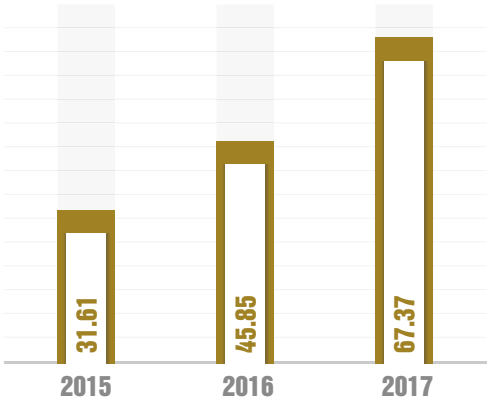
As a direct supplier of new energy products, in 2017 Suntien further expanded the methods and scope of its product supply by deepening its cooperation with upstream and downstream enterprises. Wind power generation is an important product of renewable energy production for Suntien, and in 2017 it added consolidated installed capacity of 552.2 MW and generated 6,737 million kWh of electricity through wind power. Suntien prioritized the development of photovoltaic power generation as an effective supplement to wind power in the regions with rich light resources such as northwestern and northeastern China. During the year, it added installed capacity of 20 MW and generated 96 million kWh of electricity through photovoltaic means. Total electricity generated through wind and photovoltaic power was 6,833 million kWh, which helped reduce carbon dioxide emissions by 2,733,200 tons, sulfur dioxide emissions by 6,812,500 tons, nitrogen oxide emissions by 10.25 tons, and dust emissions by 1,858,600 tons.

Renewable energy's greatest contribution to China's "green development" is in its alleviating of the conflict between the growth of energy consumption and reduction of greenhouse gas emissions. In 2017, China became the world's largest user of renewable energy, but it also needs to overcome natural disadvantages in this respect. Compared to traditional fossil fuel-based energy, renewable energy has disadvantages in terms of dispersed distribution and stability. Suntien needs to improve the efficient use of renewable resources through resource control and system construction. The continuous promotion of offshore wind power, wind power hydrogen production and pumped storage projects in 2017 will help Suntien make better use of natural resources and improve the efficiency of wind energy resource conversion.

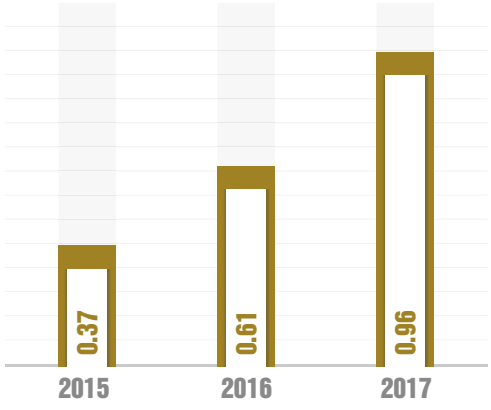
Photovoltaic installed capacity
(Unit: MW)



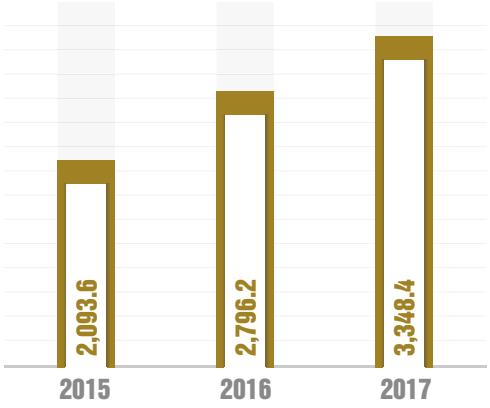
Electricity generation through wind power
(Unit: 100 million kWh)



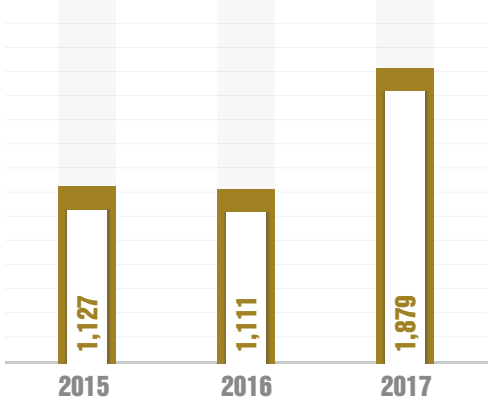
Electricity generation through photovoltaic power (Unit: 100 million kWh)



Wind power consolidated installed capacity
(Unit: MW)



Natural sales supply volume
(Unit: million cubic meters)



TACKLING CLIMATE CHANGE

In 2017, Suntien continued to implement voluntary greenhouse gas emission reduction projects, and filed and registered additional new energy projects such as wind and photovoltaic power generation which met the criteria for development from the National Development and Reform Commission and the United Nations Clean Development Mechanism Implementation Committee. It also traded the greenhouse gas emissions reduction obtained for its operating projects. The greenhouse gas voluntary emissions reduction agreement, as a market-based greenhouse gas trading mechanism, can transform our emissions reduction into resources and effectively offset the negative impacts of other enterprises in the control of climate change. Since 2007, Suntien has been involved in international greenhouse gas emissions reduction or carbon transactions through the United Nations Clean Development Mechanism Program.

Another efficient low-carbon energy source, natural gas, will play an increasingly important role in the development of China's clean energy structure. For northern China particularly, improving the proportion of natural gas in overall primary energy consumption could ensure the implementation of clean heating and promote a positive change in rural lifestyles. Suntien is one of the most important natural gas suppliers in Hebei Province, and sold 1,879 million cubic meters of natural gas during the year, representing an increase of 69.08% compared to 2016. While achieving a rapid growth of supply, in 2017 Suntien continued to promote supply through multiple channels including LNG and CNG, expanded upstream procurement channels, abd contacted and communicated with overseas natural gas suppliers including Petroliam Nasional Berhad, in order to meet stakeholder needs for transport, industrial production and residential consumption.

GREEN UPGRADES OF CONTRIBUTION AREAS

Suntien's development has long been based in the PRC, concentrating around Beijing, Tianjin and Hebei. The regions where Suntien built its wind farms were gradually expanded from Zhangjiakou and Chengde, Hebei Province to the whole country and even overseas countries. However, Beijing, Tianjin and Hebei remain as the foundation of our development, and our contribution to the green development and economic transformation of these areas will be on a "win-win" basis. In 2017, the development and reform commissions in Beijing, Tianjin and Hebei jointly developed the Action Plan for Coordinated Energy Development in Beijing, Tianjin and Hebei (2017-2020), which sets out quantitative indicators for the use of clean energy and "coal-to-gas conversion" projects, and specific low carbon emission plans for the 2022 Winter Olympics in Chongli. In early 2016, all Suntien wind power projects in Chongli were included in the Phase Three Development Proposal for One Million KW Wind Power Facilities in Zhangjiakou. In 2017, the Company's wind power projects at Mudaogou, Wuji County and Laozhanghe, Julu County, were included in Hebei Province's wind power development plan for 2017. With the advent of a new action plan for Beijing, Tianjin and Hebei, all clean energy enterprises including Suntien will enter a new stage of development. Suntien needs to speed up development, improve operational efficiency and mobilize enterprise resources to meet the demand for clean energy in these areas.

In 2017, the first stage of the Action Plan on the Prevention of Air Pollution (the "Ten Measures to Improve Air Quality") was substantially completed. To ensure the steady advance of "coal-to-gas conversion" projects in Beijing, Tianjin and Hebei, Hebei Natural Gas responded to the requirements of the National Energy Administration and Hebei Provincial Development and Reform Commission by accelerating the construction of gas storage and peak regulation facilities to ensure that peak winter season demand for natural gas in Beijing, Tianjin and Hebei is met.

In 2017, with favorable regional policies along with increased demand for new energy and improvements to ancillary infrastructure such as power grids across China, the regional scope of our operations was further expanded. In addition to its existing regional management, we were given full play to the six cross-province preparatory offices – including Guangdong-Guangxi-Hainan, Sichuan-Chongqing-Tibe and Zhejiang-Fujian-Shanghai. We also started exploration and presence planning in areas where wind power industries are currently underdeveloped. We hope to cooperate with local governments and industrial chain enterprises based on industry experience and enterprise resources, deepen communication and exchange, jointly promote the development of local new energy industries, and increase the proportion of renewable energy in these regions.

PARTICIPATION IN INDUSTRY DEVELOPMENT

The PRC new energy industry is facing broad and rapidly growing development prospects. Whether from the perspective of social energy structural adjustment or consumer requirements for clean energy, the overall electrification of society and the advance of clean power generation will be important future trends. The effective development and upgrading of the new energy industry requires the joint efforts of enterprises, institutions and organizations both inside and outside the industry.

In 2017, Suntien began to increase its participation in communications, exchanges and events promoting industry development. This came about partially for reasons of business development, with our efforts in Beijing, Tianjin and Hebei in particular yielding gradual improvements to Suntien's position and industry role; and partly in response to government requirements for innovative development which require more scientific and technical investment (for details, please refer to this report's "Technological Innovation" section). We hope to continue our participation in industry actions, and to allow a wider range of application of new technologies through the promotion of technological upgrades via cooperation with industry peers.

Due to the unique characteristics of the new energy industry, government policies to a large extent determine the course of its development. In 2017, to spur the full use of wind energy resources across regions and promote the sustainable development of the wind power industry, the National Energy Administration issued the Circular on Conducting Demonstration Wind Power Grid Connection at Fair Price, which included 13 projects in five provinces – including Hebei and Heilongjiang – in its list of demonstration projects. Suntien was the single most prominent wind power enterprise on the list, with a total of three projects selected, namely the Dayingtu project in Kangbao, Zhangjiakou, and the Xingshan and Wanlong projects in Shuangcheng, Harbin. With the adjustment of the overall energy structure of the country and the maturity of the market mechanism, wind power and fair-price wind power will play greater roles. Through its active participation, Suntien hopes to provide information as reference for future policy developments.

TACKLING CLIMATE CHANGE

Case study: China's first wind power hydrogen production project, also the biggest in the world

As a new model of energy utilization, wind power hydrogen production technology can enable the conversion of excess wind power resources into another type of clean energy – hydrogen. Its development comes amid a background of "abandoning wind power", and has become an effective way for Suntien to explore efficient utilization of wind power resources. In 2017, Suntien's Guyuan wind power hydrogen production project commenced construction. The first industrial application of wind power hydrogen production in the PRC, its hydrogen production station will feature electrolysis water hydrogen production and a hydrogen utilization systems with a capacity of 10 MW. Upon completion, the project will realize an annual production of 7,008,000 cubic meters of hydrogen with a purity of 99.999%, making it the largest wind power hydrogen production project in the world.

Case study: Smooth progress at northern China's first offshore wind farm

Suntien's 300 MW offshore wind power demonstration project at Bodhi Island, Leting County, commenced basic civil construction in May 2017, and began lifting activities in September 2017. The construction will result in the first offshore wind power project in northern China, and the first offshore wind power project approved for the Bohai Sea.

Case study: Tangshan LNG Terminal breaks two records in one month

In October 2017, the Tangshan LNG Terminal of PetroChina Jingtang Liquefied Natural Gas Co., Ltd. – jointly established by Hebei Natural Gas, China National Petroleum Corporation and Beijing Enterprises Group Company Limited – received its 100th LNG carrier since commencing operations. During the same month, the facility's total natural gas external transmission volume reached 10 billion cubic meters.

The Tangshan LNG Terminal provides Suntien with an important overseas source of LNG and is also an important reliable natural gas supply to northern China in winter. In the "coal-to-gas conversion" project, total gas supply from Tangshan LNG Terminal accounted for 28% of total gas consumption in Beijing and 47% of the maximum single-day gas supply in Beijing in 2017, underlining its significant role in the winter supply of gas for heating to Beijing and all of northern China.

Case study: Participation in the "China for the World" 2017 Belt and Road Forum

In November 2017, Suntien was invited to the "China for the World" 2017 Belt and Road Forum in Beijing. The event saw discussions between the government, infrastructure enterprises, financial institutions and owners of infrastructure projects across China on how Chinese enterprises should transform and upgrade under the "Belt and Road Initiative", seek long-term market development, and create sustainable value for local communities.

Case study: Participation in the Medium- and Long-term Solar Power Development Plan of Hami City (2016-2030)

In May 2017, Suntien was invited to the review meeting for the Medium-and Long-term Solar Power Development Plan of Hami City (2016-2030) and the preliminary work launch meeting for photothermal power development. The large-scale development of photothermal development in Hami has been commenced. Suntien will leverage its existing local new energy projects to increase its future participation in the process of industrial construction.

Case study: Attending the China International CSP Station Conference & CSPPLAZA 2017 Annual Conference

In June 2017, Suntien was invited to the China International CSP Station Conference & CSPPLAZA 2017 Annual Conference. Through communication and exchange with government authorities and other participants, the Company gained insight on advanced technologies and future development trends in concentrated solar power, and discussed opportunities for cooperation in the future development in the core "Silk Road" economic belt area.

As the largest and highest-level annual international conference in the PRC concentrated solar power area, the conference attracted approximately 400 enterprises, 67 exhibitors and over 1,000 persons from the industry, including developers, designers, constructors, equipment manufacturers and domestic and overseas researchers.

STEADY
SUPPLY OF
ENERGY

Suntien is committed to providing regions with a safe, stable and green energy supply, and to the optimization and upgrading of regional energy structures. It continued to supply the power grid with clean power through enhancing the professional management of wind and photovoltaic power generating stations, strengthening public knowledge of gas safety, providing customer services to ensure safe gas consumption in communities, performing real-time monitoring of the production status and operation of power/gas stations, and ensuring the safe and steady operation of these facilities through technology innovation and information system development.

STEADY SUPPLY OF ENERGY

SAFETY MANAGEMENT

Suntien strengthened its management of safe production to reduce the potential occurrence of major accidents, protect the safety of employees and residents of surrounding communities, ensure stable and continuous production and operation, and supply clean energy for regional stability. Through regular meetings of its production safety committee (of which 10% of members are ordinary employees), Suntien was able to summarize and analyze production safety work already carried out and make arrangements for further key actions in this area.

Examples of Suntien's occupational health and safety management systems

Area		Suntien	HECIC New-energy	Hebei Natural Gas
Occupational health		Occupational Health Management Measures Measures for Safety Management at Sites of Production and Operation with Great Danger and Hazardous Factors Labor Protective Articles Supervision and Management Measures	Measures for Safety Management at Sites of Production and Operation with Great Danger and Hazardous Factors Management Measures for Safe Operation in Limited Space Occupational Health Management Measures Labour Protective Articles Management Measures (Revised)	Occupational Hygiene Management System System for Safety Management at Sites of Production and Operation with Great Danger and Hazardous Factors Detailed Rules for Labor Protective Articles Distribution and Management
Safe production	Emergency response plan	Emergency Response Plan Management Measures Integrated Emergency Response Plan for Safe Production Incidents Special Fire Emergency Response Plan	Incident and Emergency Response Plan Management Measures Integrated Emergency Response Plan Special Fire Emergency Response Plan Sudden Incident Emergency Evacuation Plan Sudden Traffic Accident Emergency Response Plan Sudden Network and Information Security Incident Emergency Response Plan	Integrated Emergency Response Plan for Safe Production Incidents Long-distance Natural Gas Pipeline Major Hazard Sources Incident Response Plan CNG (Compressed Natural Gas) Major Hazard Sources Incident Response Plan City gas Major Hazard Sources Incident Response Plan
	Monitoring and inspection	Measures for Safe Production Inspection at Each Level and Removal, Inspection and Rectification of Incidents and Hidden Dangers Management Measures for Safety Inspection and Monitoring of Major Hazard Sources Fire Safety Management Measures	Safety Inspection Management Measures Hidden Dangers Removal, Inspection and Treatment Measures Breaches of Safe Production Management Measures	Management Measures for Safe Production Inspection at Each Level and Removal, Inspection and Rectification of Incidents and Hidden Dangers Management Measures System for Safety Inspection and Monitoring of Major Hazard Sources Safe Production Awarding Management Measures Safe Production Punishment Management Measures
	Incident treatment	Incident Reporting, Inspection and Treatment Measures	Production Incident Inspection Procedures	System for Safe Production Accident Incident Reporting, Inspection and Treatment

Steady Supply of Energy

In 2017, Suntien's safety management focused on the construction and improvement of systems, increasing the importance of safety indicators in staff performance assessments, updating relevant guidelines (including Measures for Safety Management at Sites of Production and Operation with Great Danger and Hazardous Factors; Labor Protective Articles Supervision and Management Measures; Incident Reporting, Inspection and Treatment Measures; and Fire Safety Management Measures) in terms of developing emergency response proposals and monitoring, inspecting and managing production-related accidents, and strengthening the safety management of hazardous production and operational sites. The aim of all these measures was to prevent accidents, ensure smooth safe production, and avoid casualties, occupational hazards and major economic losses. It carried out the construction of double control systems, including safety risk classification and the control and identification and treatment of hidden dangers, promoted relevant "double control" system-building documents (such as the safe production "double control" system-building proposal and the work proposal for the long-term mechanism for preventing major and catastrophic accidents), and invited external professionals to provide training on building the "double control" system.

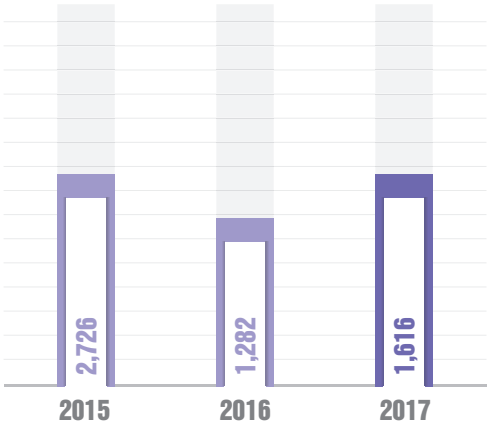
STEADY SUPPLY OF ENERGY

Suntien has established a sound OHSAS 18000 certified occupational health and safety management system. The system emphasizes the prevention of hazards to employees and the environment which may potentially arise from aspects of production and operation. The Company maintained full compliance with all rules and regulations, including the Occupational Health Management Measures, pertaining to the protection of employees from occupational hazards in the production process, and the prevention and control of occupational diseases. In 2017, Suntien invested a total RMB16.16 million in safe production. There were no work-related deaths and 81 lost days due to work injuries during this period.

To further improve employee awareness of risk prevention and risk response abilities, as well as to increase safety knowledge and promote a culture of safety, Suntien has established a staff safety training and education system. In 2017, Suntien held a "Month of Safe Production" campaign with the theme of "Comprehensive implementation of accountability of safe production". The campaign organized employees to watch safe production training videos, conducted publicity and training for the Safe Production Regulations of Hebei Province, collected safety concepts, strengthened the promotion of and education in production safety, and promoted a culture of safety. The Company also identified hidden accident risks through special flood control inspections, and arranged 14 emergency exercises for electric shock accidents, firefighting, and responses to earthquakes, city gas leakages, gas transmission line exposures, and floods.

In 2017, Suntien held a safety workshop in which technical experts gave training to full- and part-time safety managers on the development of production safety standards, safety risk identification, standard rules for safe production at power generation enterprises, and assessment standards. The Company continues to promote production safety through on-site inspections, guidance and communication, towards achieving the standard requirements for level-2 safe production in all its enterprises by the end of 2018.

Investment in production safety from 2015 to 2017 (in ten thousands RMB)



SAFE PRODUCTION EXPENSES

Average training hours per person (by employee type) in 2017

AVERAGE NUMBER OF TRAINING HOURS PER PERSON

Case study: Hebei Natural Gas's safety knowledge contest

In June 2017, Hebei Natural Gas organized a safety knowledge contest. Six teams, including the Pipeline Branch and Shahe Branch, were selected to participate, with the Pipeline Branch emerging as the winner. By combining safety knowledge with entertainment, employees' safety education, awareness and enthusiasm for safety-related activities were all greatly enhanced.

Case study: HECIC New-energy carries out comprehensive practical emergency exercises

In July 2017, HECIC New-energy put its emergency response plan and emergency response awareness to the test when the China Energy Research Society's emergency response management teaching and research team were invited to carry out emergency response training and exercises at the production technology center in Zhangjiakou. Using desktop simulations, special training, comprehensive practical exercises and a variety of other methods, employees improved their production safety awareness while proving their ability to master emergency response measures.

Case study: Hebei Natural Gas's rescue drill for third-party damage to long-distance transmission pipelines in 2017

Rescue drill simulations for third-party damage to long-distance transmission pipeline scenarios were held by Hebei Natural Gas in 2017 at a pipeline five kilometers north of Xingtai Station's 11# valve chamber. Events included accident detection and alarming, preliminary accident treatment, proposal launch, accident reporting, calculation of pipeline operating parameters, market coordination, emergency rescue route guidance, emergency rescue and repair, unloading and replacement, media release, communication transmission, logistical support and restoring gas supply. The drill drew upon Hebei Natural Gas's years of accumulated experience and results. By using advanced emergency rescue tools and modern communication methods, reasonable treatment measures and regulated technical standards were determined for the emergency rescue of long-distance transmission pipelines.

STEADY SUPPLY OF ENERGY

QUALITY MANAGEMENT AND CONTROL

As the Company is experiencing a period of rapid growth, it has a large number of projects under construction for its wind power and natural gas businesses. By adhering to the idea of "Improving project quality management and operation management" and "Pursuing excellence and building classic projects", Suntien assumed a leading role in facilitating project quality management at higher level.

The effective control of a project's quality determines its operational efficiency after completion. With respect to the principle of "Safety first, quality foremost", Suntien established a comprehensive quality management system involving all employees from senior management to on-site quality controllers. This sets out the management scope at all levels to ensure a clear division of goals, and full incorporation of quality culture into product research and development, production, project construction, service operation and maintenance, and operational management practices.

Suntien's Project Construction Management Measures, Construction Project Quality Management Rules and Project Construction Progress Management Measures were developed to ensure that the quality of its projects meets national, industry and design standards, and that its projects can compete for provincial and national awards for quality. It has established a sound quality monitoring and assurance system in which quality is given top priority among conflicts pertaining to quality, project progress and costs. The Company also plans annual quality inspections and regular examination of quality management for its construction projects. In 2017, Suntien developed Civilized Construction Management Rules for project quality, safety and environmental protection as relating to project members such as suppliers, contractors and supervisors.

Case study: HECIC New-energy's 49.5 MW Lihuajian wind farm construction project wins a National High Quality Investment Award

In 2017, HECIC New-energy's 49.5 MW wind farm construction project at Lihuajian was recognized by the Investment Association of China as a National High Quality Investment Project 2016-2017. The award was given following preliminary materials and on-site reviews, comprehensive assessment, examination and publicity by the China Association of Construction Enterprise Management.

STEADY SUPPLY OF ENERGY

CUSTOMER SERVICES

Suntien follows a "Customers and quality first" philosophy which places great importance on customer service. It also recognizes that the customer bases for new energy and natural gas are different. The electricity generated by Suntien's wind power and photovoltaic projects is all acquired by local power grids. While ensuring the operational safety of its power stations, it maintained real-time communication with local power grid companies, and actively responded to and met their scheduling and operation needs. It also cooperated with power grids by playing a key role in the optimization of power structure planning, and expanding local absorption of renewable energy and electricity. No customer complaints were received in 2017.

Natural gas customers mainly comprise residential and enterprise users. In recent years, the number of gas users and the scale of the Company's pipeline network have continuously expanded. At the end of December 2017, the number of residential users covered by the Company's self-operated natural gas services reached 234,000. As it is now facing a wider range of residential and distributor customers, the Company needs to provide higher quality services to meet their diverse needs in a timely manner and to continue providing a safe and steady product supply. All 16 branches and subsidiaries of Hebei Natural Gas covering civil users provide customer services across four major areas: door-to-door services, customer service centers, hotline centers, and extended business. Specific services provided include safety inspections, repairs, gas account opening, gas supply, billing, consultation, ordering, sales of gas appliances, and sales of gas insurance.

Concurrent with the establishment of special service departments such as customer service centers, door-to-door services and hotline centers, the Company developed management rule and position guides such as the Standardized Management Measures for Customer Services, Standardized Management Measures for Door-to-Door Services, Standardized Management Measures for Hotline Center and the Customer Complaint Handling Process. It also set up the 96366 customer service hotline in order to achieve a standardized management of customer services, guarantee customer service quality, and improve customer satisfaction.

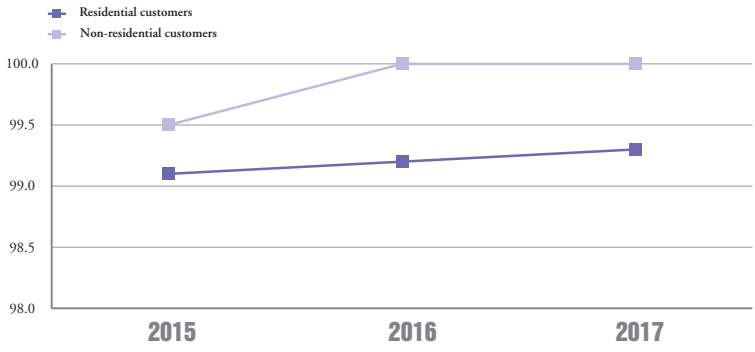
Each year, the Company conducts a satisfaction survey for residential customers and non-residential customers through telephone interviews, home visits and a voice assessment system in accordance with the requirements of the Customer Satisfaction Survey Management Measures. Upon completion of the survey, the Company prepared the Overall Satisfaction of Residents and Complaints and Recognition of Customers for 2017 and the Report on Satisfaction of (Pipeline) Non-residential Customers of the Company for 2017. It developed and followed up on customer feedback with corresponding improvement measures which provide more extensive and active services. In 2017, satisfaction surveys were conducted for 35 distributor customers of the Pipeline Branch, with an overall satisfaction ratio of 100%. A total of eight customer suggestions were also collected, and appropriate improvement measures have since been made.

NUMBER OF COMPLAINTS RECEIVED FROM 2015 TO 2017

Customer type	2017	2016	2015
Residential	66	89	36
Non-residential	0	0	4

Note: New complaints received in 2017 represented the number of complaints received by the Company's 96366 hotline center from residential customers, and no measures were adopted to identify whether the complaints were valid.

Customer satisfaction survey results from 2015 to 2017



STEADY SUPPLY OF ENERGY

In 2017, Hebei Natural Gas updated and amended the Detailed Rules for Customer File Management. Through establishing a sound resident customer file management protocol and maintaining records of safety inspections and rectifications of hidden dangers, accident rescues and repairs, it provides residential customers with timely follow-up services to ensure a safe gas supply. It also developed the Detailed Rules for the Management of Removable Storage Media. Under these rules, Company employees are prohibited in all circumstances from copying client-related confidential information to removable storage media.

The Company's customer services business continued to be improved, and was recognized as a "Well-known Hebei Service Brand" by the Hebei Provincial Administration of Quality and the Technical Supervision and Hebei Provincial Quality Award Assessment Committee in 2017.

TECHNOLOGICAL INNOVATION

Continuous investment in innovation ensures the continuous improvement of the competitiveness of an enterprise. In particular, Suntien wishes to make full use of the latest digital technologies to develop better products and services, improve productivity and service efficiency, ensure the safe operation of power stations, and significantly increase the stability and safety or clean energy supply. It will achieve this through enhanced investment in research and development and encouraging innovation among all employees. Suntien's total research and development expenses in 2017 amounted to approximately RMB6,140,000.

To further promote systematic scientific and technological innovation, Suntien gradually improved its research project management system and established a research project management process covering topic selection, feasibility study, project filing, project implementation, inspection for acceptance, post-evaluation, results examination and assessment. It applied for technological progress awards, and made research achievements of international scope which laid a foundation for further improvement in the Company's research technology management and influence. Additionally, the Company carried out work in respect to applications for external patents and project filings to ensure that its intellectual property rights are effectively protected by law. In 2017, HECIC New-energy obtained eight utility model patent certificates in respect to the Fan Gear Box Cooling Device, the Temperature Monitoring Device for Main Junction Box of Fan Rotors, the Washing Machine for Heat Sink of Independent Gear Box of Wind Turbines, and other devices.

Suntien upheld the spirit of transparency and cooperation by working with external entities such as academic research institutions, enterprises and universities to conduct special research resulting in environmental, social and economic benefits. The closing and inspection for acceptance of the "Intelligent monitoring and management system for new energy and water affairs" (project number: 15210312D) joint research project between HECIC New-energy and HECIC Water Investment Co., Ltd. was successfully completed in April 2017. The project leverages data processing methods and systems including big data mining and cloud computation to integrate wind farm data and gradually develop unattended wind farms with minimal human monitoring. Farms of this type would provide guarantees for the operational maintenance of new energy equipment while reducing labor intensity demands to operators. The "Multi-wind farm cluster regulation and wisdom expert system for power grids" provincial research project by HECIC New-energy has resolved the issues relating to transmission of data between different wind power equipment, realized real-time data transmission for multiple wind farms and automatic diagnosis, analysis and evaluation of system failures, and improved the maintenance efficiency and availability of wind turbines and overall power generation efficiency of regional wind farms. In 2017, the project underwent a research result assessment, and the conclusion was that its results had generally reached the most advanced level in the world.

Customer service personnel of Shenzhou CIC explain gas safety to farmers in Baijiazhuang Village

Safety and customer service department personnel from Qinghe CIC and urban administration bureau staff promote natural gas safety at the Changjiang Primary School

Case study: Hebei Natural Gas promotes the safe use of gas

As an important content for customer service personnel of Hebei Natural Gas, from June to November 2017, local customer service departments of Hebei Natural Gas went to villages, townships and schools to carry out a "Community gas safety and award-winning quiz" activity. Both entertaining and educational, the quizzes promoted gas safety knowledge among villagers and students alike.

Customer service personnel of Shenzhou CIC explain gas safety knowledge to farmers in Baijiazhuang Village

Customer service personnel of Shijiazhuang CIC promoting gas safety in Bafang Village

Case study: Shijiazhuang CIC Natural Gas Co., Ltd. promotes gas safety on Hebei TV

In October 2017, Hebei TV's Today's Information program brought viewers a look at the daily work of Hebei Natural Gas maintenance and safety inspectors. The segment explained basic matters of natural gas safety, common hidden dangers and rectification methods to users, gave instructions for the correct use of pipeline natural gas, and explained the hazards of various non-compliant uses of gas and their appropriate rectification methods.

Shijiazhuang CIC Natural Gas Co., Ltd. promotes gas safety on Hebei TV

Case study: Hebei Natural Gas holds its first customer service personnel skills competition

Hebei Natural Gas held the first customer service personnel skills contest in June 2017 to improve the skills of employees in customer services, safety inspection and repair positions and motivate front-line staff to further boost their work quality. The contest consisted of an indoor safety inspection for civil users and gas appliance troubleshooting, and combined theoretical knowledge and practical operation to assess contestants' abilities.

Hebei Natural Gas holds its first customer service personnel skills competition

STEADY SUPPLY OF ENERGY

Case study: Wind farm power forecast system technical upgrade

The Company's project management department worked with third-party companies to complete a technical upgrade of the power forecast system at the Ruoqiang wind farm in Suntien in 2017. The upgrades significantly improve the accuracy of wind power forecasts.

Case study: Hebei Natural Gas develops an unmanned aerial vehicle for urban pipeline inspections

In 2017, Hebei Natural Gas developed and put into service an innovative unmanned aerial vehicle designed to conduct inspections on urban pipeline networks. It also established an unmanned aerial vehicle video monitoring system premised on "one unmanned aerial vehicle, two persons and three shifts" to realize real-time monitoring of the ground conditions of underground pipelines. By setting up ground stations and an unmanned aerial vehicle inspection platform at Qinghe CIC Natural Gas and designating persons to manage and implement the inspections, a safety management model with integrated air and ground management has now been established.

Case study: The "Intelligent Warehouse" project-a big data center for the new energy business

HECIC New-energy has established a production and operation management facility (dubbed "Intelligent Warehouse") for building a big data center for the new energy power generation business. Targeting the production and operational data of the Company's wind farms and photovoltaic power stations across China, the Intelligent Warehouse will leverage the Internet of Things, cloud computing and big data technology to monitor real-time production and operation status of wind farms/photovoltaic power stations, conduct intelligent data analysis, big data mining, wind turbine performance analysis and failure diagnosis, and provide big data support for decision-making relating to production and operation, asset management and performance assessment. The aim is to further improve the Company's management and control ability, ensure safe and steady operation of power stations, lower operation costs and improve power generation efficiency. The big data platform for the Intelligent Warehouse was completed in 2017, and the project was scheduled to commence commissioning by the end of October 2018.

Case study: HECIC New-energy establishes a national wind farm/photovoltaic station monitoring and operational center platform

HECIC New-energy has established a basic national platform that integrates the running of applications including data exchange and analysis between the monitoring and uniformed real-time database systems of wind farms and photovoltaic power stations. The platform monitors real-time production and management status, and meet the needs of refined management of new energy business. First rolled out for northern Hebei Province in December 2017, in the future, the platform will be further applied to integrate production data for stations in southern Hebei Province and regions outside the province. The national monitoring and operation center platform also transmits data from wind farms and photovoltaic stations to the Intelligent Warehouse big data platform at the Company's headquarters in Shijiazhuang through dedicated network channels, providing vital information for decision-making.

BUILDING A DEVELOPMENT PLATFORM

Suntien's prosperity depends on the support and dedication of each employee. Accordingly, Suntien hopes that each employee can grow with the Company. To this purpose, the Company provides extensive education and training to enhance employee competitiveness, provide career development guidance, and expand their paths of career development. Suntien also provides reasonable channels for employee promotion and scrupulous protection of employees' vital interests.

BUILDING A DEVELOPMENT PLATFORM

EMPLOYMENT AND ATTRACTION

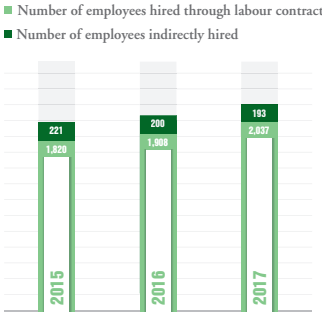
Employees from Hebei Province, PRC, constitute the main Company workforce, while its wind farms and Hebei Natural Gas are the major drivers of Suntien's continuous development. The latter facilities represent a growing source job opportunities and directly contribute to local development. Suntien strives to foster a harmonious work environment for its employees and the communities in which it operates. HECIC New-energy was named as one of the "Annual Top 10 Best Chinese Employers in Shijiazhuang" in 2017.

Suntien operates in full compliance with the Labour Law, the Employment Contract Law and other national laws and regulations, including signing employment contracts with all employees and making full social insurance contributions for employees in a timely manner. To standardize the employment environment and protect the basic rights of employees, Suntien formulated Employee Management Measures (Revised) with specific provisions on employees' basic obligations and rights, position ranking, recruitment and hiring, position promotion, and a mechanism of reward and punishment. It eliminates all forms of gender, race, religious, age and political discrimination in the recruitment process, remuneration system, training mechanism and promotion channels, ensuring that all employees are provided with fair, just and open opportunities. Suntien does not hire child labor or force employees to work in any form. If a minor laborer is identified in the Company's employment, the Company will arrange for special employees to bring the minor home to their lawful guardians.

Suntien has established an industry-competitive employee remuneration and incentive system. The Remuneration Management Measures (Revision) specify the remuneration structure and adjustment mechanism for employees. The measures also contain a provision that employees who have obtained excellent annual assessment results will be provided with further motivation by having their position ranking salary raised by a level for the next year.

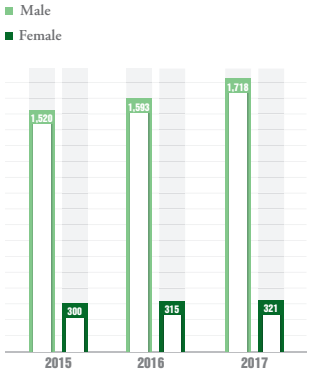
To safeguard employees' physical and mental health and maintain their right to leave, the Company has established the Management Measures for Employees' Paid Annual Leaves of China Suntien Green Energy Corporation Limited in accordance with the Labor Law and the Regulations for Employees' Paid Annual Leaves and in view of the Company's actual situations. The measures clearly explain employees' leave rights and provide a range of detailed solutions to possible disagreements.

Distribution of employment by employee type, from 2015 to 2017 (person)



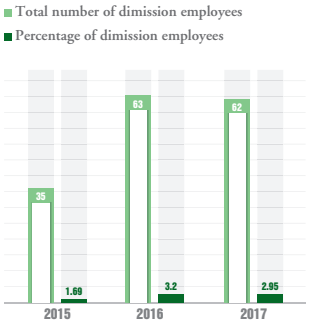
Note: As the Group's businesses are mainly operated within China (two Hong Kong employees), the Group has not disclosed the geographical distribution of employees.

Distribution of employment by gender, from 2015 to 2017 (person)

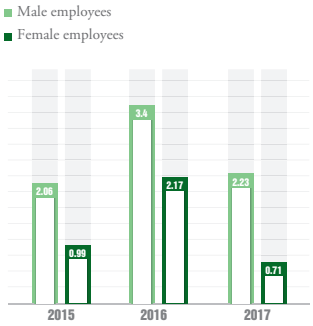


BUILDING A DEVELOPMENT PLATFORM

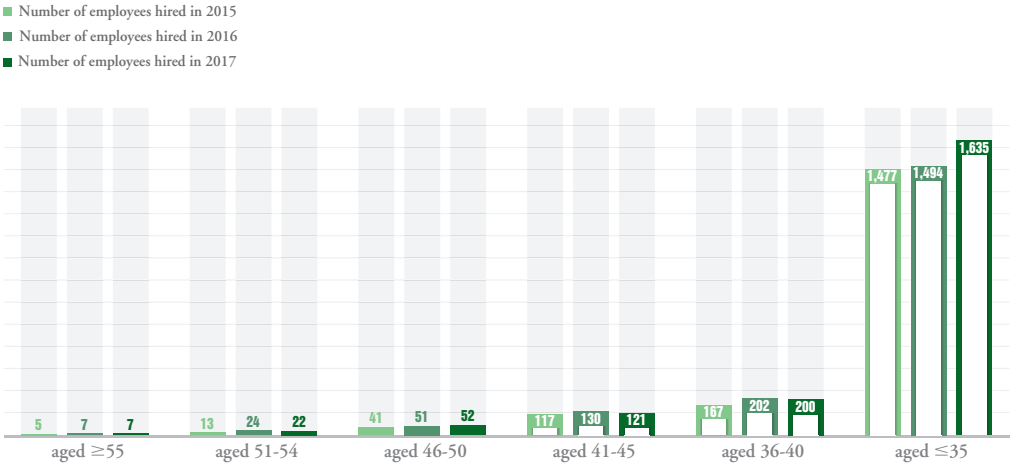
Total number of dismission employees from 2015 to 2017 (person)



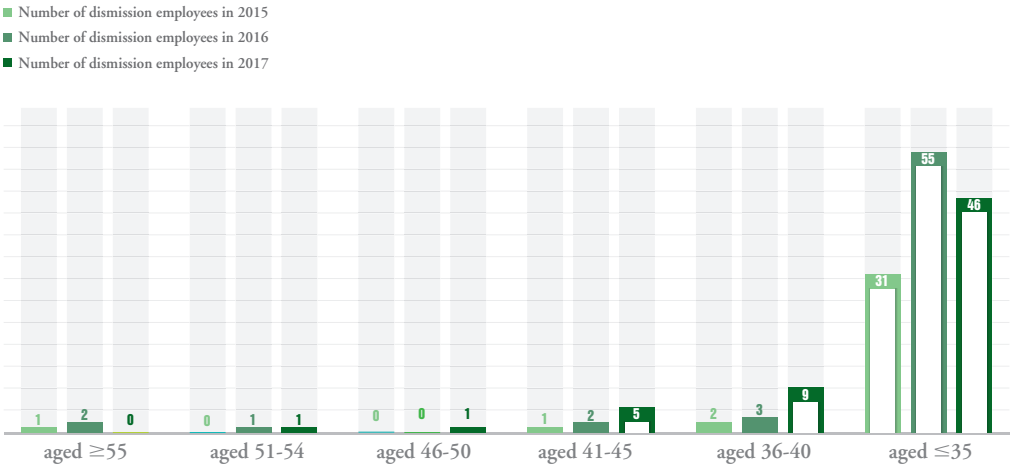
Percentage of employees by gender, from 2015 to 2017 (%)



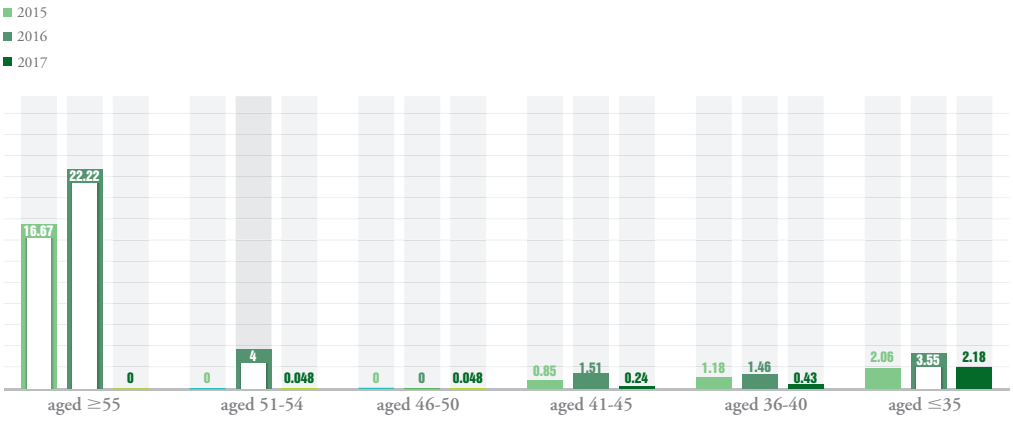
Distribution of employment by age, from 2015 to 2017 (person)



Distribution of dismission employees by age, from 2015 to 2017 (person)



Percentage of dismission employees by age, from 2015 to 2017 (%)



TRAINING AND EDUCATION

With continuous growth of the Company and the fast improvement in prospects for the new energy industry, employee personal development has become a core concern in our sustainable development. Staff development, both personal and for the Company, is one of the foundations of Suntien's future.

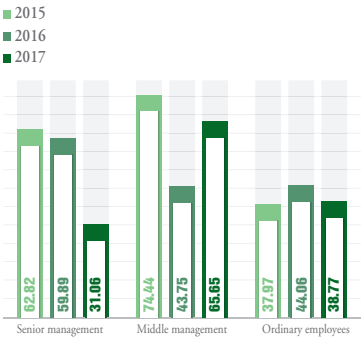
Suntien attaches great importance to the improvement and promotion of the core skills of employees. In response to job needs and staff demands, Suntien listens to employee opinions and suggestions and has developed an annual training program, which, through internal and external career training such as practical field training, online teaching and professional and technical workshops, helps employees to master the necessary professional knowledge and practical skills to meet their development needs. To this end, the Company established the Management Measures for Induction Training of New Employees of China Suntien Green Energy Corporation Limited, the Detailed Work Rules for Internal Trainers Team of China Suntien Green Energy Corporation Limited and the Employee Training Management Measures of China Suntien Green Energy Corporation Limited and carries out effective staff training.

BUILDING A DEVELOPMENT PLATFORM

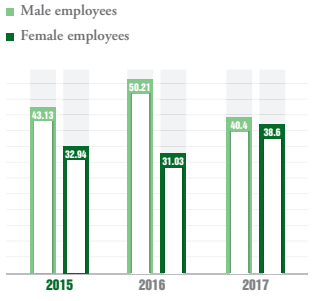
Employees at different levels have different development needs. For middle and senior management, better communication and exchange can enable equal information and joint operation. To facilitate exchanges of business experience among middle and senior management, foster strengths and avoid weaknesses, and solve possible operational issues, the Company arranges various forms of training on a regular basis. The training not only strengthens interactions among middle and senior management, but also improves management's capability.

Average number of training sessions per person by gender, from 2015 to 2017 (times)

Average number of training hours per person by gender, from 2015 to 2017 (hours)



Average number of training hours per person by employee type, from 2015 to 2017 (hours)



Case study: Wind resource management training in 2017

In November 2017, Suntien organized wind resource management training to improve effectiveness in managing wind measurement equipment and conducting wind resource assessments. A total of 34 wind resource managers and wind measurement staff from various regions, preparation offices and branches attended. Five technical experts were invited to provide in-depth explanations about the measurement and assessment of wind resources in the areas of theoretical basics, software use and case analysis.

BUILDING A DEVELOPMENT PLATFORM

In 2017, Suntien arranged for its middle and senior management to visit high-tech enterprises including Baidu's Shanghai branch and Huawei. In the process, they learned about the companies' management innovations, management system reforms, cross-department coordinated operations and inventive systems. This type of "enterprise university" training is an innovative new element in Suntien's training model. HECIC New-energy and Hebei Natural Gas organized training for their middle and senior management in Shanghai and Zhejiang, respectively, in the form of combining college study and enterprise visits, which helped improve operation and management, expand strategic thinking and broaden theoretical vision.

For common level employees, Suntien focused on attitudinal and technical knowledge training. The Company expects common level employees to think positively and to study problems from many aspects to realize all-around development, which will contribute to the development of the Company while expanding their own career paths.

For those who have just begun their careers, Suntien has held activities for young common level employees for three consecutive years since 2015, most recently in Jianshui in 2017. For young employees, these activities can bring access to new things which are outside of their daily lives and work, enrich their life experience, and help build a more comprehensive understanding of themselves and of society. For Suntien, the activities encourage the growth of young employees while ensuring a reserve of up-and-coming employees for future development.

CARE AND COMMUNICATION

The Company values every employee, including employees who may be experiencing economic difficulties due to natural disasters, accident or other reasons. Hebei Natural Gas has developed the Measures for Subsidizing Employees with Financial Difficulties and Charity Fund Management Measures with clear provisions for the raising, utilization and management of charity funds. The Company helped employees in financial difficulty with appeals to employees for donations, as well as by salary advances and corporate funding. In 2017, HECIC New-energy disbursed RMB35,000 for employee surgery expenses in accordance with relevant policy.

Suntien also prizes its interactions and exchanges with employees. The Employee Representative General Meeting Implementation and Management Measures of China Suntien Green Energy Corporation Limited implemented by Suntien, clearly sets out the process for selecting employee representatives and their rights and obligations, including seeking proposals and pressing topics, representative speaking, and participation in voting and discussion at meetings, etc. In this way, Suntien provides all ordinary employees with channels of communication to decision-makers, and the ability to make their concerns known.

Suntien also takes care to foster a healthy employee work-life balance. To this end, the Company conducts frequent cultural and sports activities. In October 2017, Suntien organized its first “Suntien Run” employee marathon, with more than 60 employees including the chairman and senior management participating.

BUILDING A DEVELOPMENT PLATFORM

Case study: Hebei Natural Gas's annual business skills competition

In August 2017, Hebei Natural Gas held a business skill competition consisting of eight events including electrical wiring, pipe docking and fixed obstacle welding, and cathodic protection parameter testing. The event setting closely simulated practical work conditions and focused on the professional basic skills of operators. Eleven teams with nearly 100 participants from 20 branches and subsidiaries of Hebei Natural Gas entered the competition.

Case study: Hebei Natural Gas low-level manager training in 2017

To strengthen team-building skills among low-level managers, Hebei Natural Gas arranged for specialized training in July 2017 in accordance with its 2017 training plan. The exercise aimed to improve the meeting quality of low-level managers, facilitate their internal communication and encourage them to think from different aspects..

Case study: Hebei Natural Gas celebrates its 16th anniversary

In April 2017, Hebei Natural Gas marked its 16th anniversary. Seven teams were established at the ceremony to participate in events entitled "Concerted Efforts", "Tacit Mutual Understanding" and "More People are Better than Less". A "Siqing Cup" basketball final was also held at the event.

INDUSTRY UPSTREAM COOPERATION

In 2017, China became the world's largest and fastest growing market in terms of power generation in the new energy industry. Suntien adheres to its goal of developing the new energy and clean energy business, actively building an industry system with coordinated development, and connecting upstream and downstream industries. It facilitates the transformation and continuous improvement of all suppliers and improves environmental performance with them through a supplier management system. It integrates social and environmental responsibility into industry chain management to promote the sustainable development of the entire industry chain.

INDUSTRY UPSTREAM COOPERATION

SUPPLY CHAIN MANAGEMENT

The development of the new energy industry cannot be separated from a high-quality supply chain. The wind power industrial chain can be broadly divided into two parts: upstream wind power equipment manufacturing, and downstream wind power construction and operation. In terms of manufacturing, a technological gap still exists between China and its international peers in the production of key wind power equipment components such as blades, gearboxes and spindle bearings. The wind power market is adapting to a new era of development, with a rapid increase in the installed capacity of the wind power equipment manufacturing industry. Through improving supply chain management, Suntien hopes to continuously improve the quality and safety of its supply chain and join with suppliers to further contribute to new energy development.

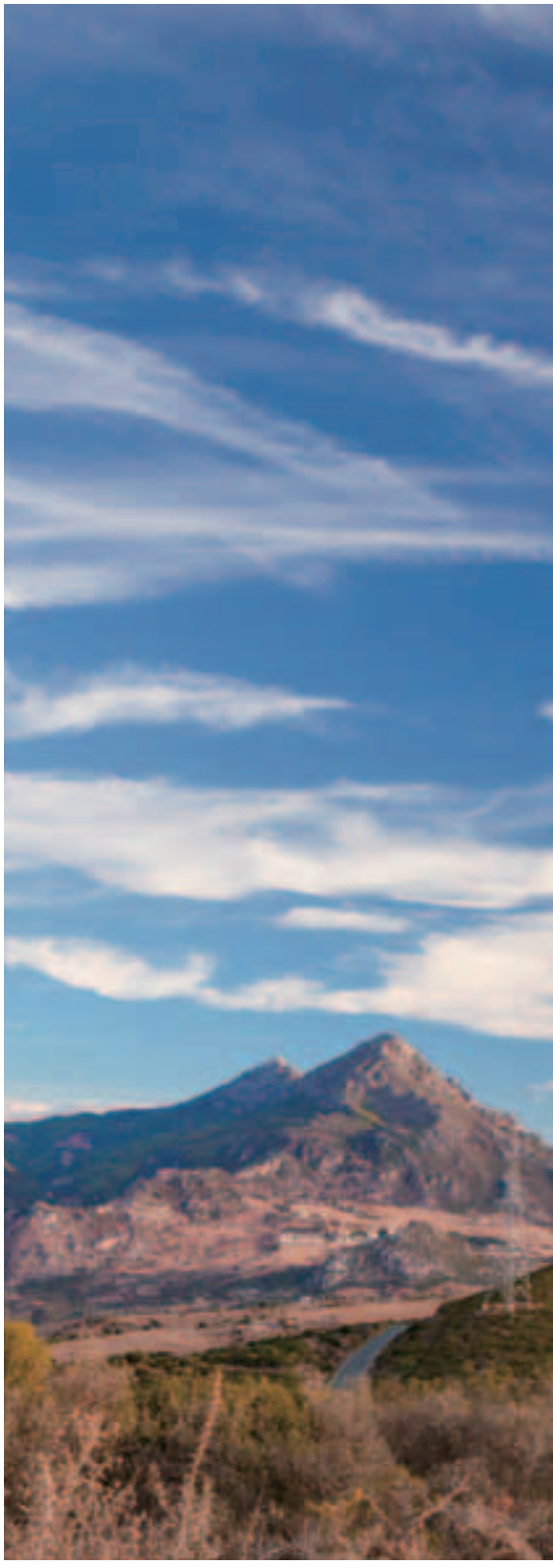
Suntien's suppliers mainly include designers, constructors, supervisors and material providers for the wind power and natural gas businesses. These include wind power equipment such as turbines and transformers, natural gas transport equipment such as pipes and valves, and office equipment and logistical services. In 2017, Suntien continued to conduct on-site evaluations of suppliers in terms of service quality, environmental safety and occupational health, including 47 suppliers to Hebei Natural Gas.

In accordance with the Bidding Law of the People's Republic of China, the Regulation on the Implementation of the Bidding Law of the People's Republic of China and the relevant laws and administrative regulations of the PRC, Suntien has successively established management systems including the Project Tendering Management Measures, the Project Construction Management Measures and the Project Quality Management Measures. Setting itself as a model of operating in good faith, Suntine has integrated social responsibility concepts and requirements into its supplier management. For the wind power and natural gas businesses, it assesses and selects high-quality suppliers in areas that include products and services, management processes and on-site monitoring and environmental safety, and implements accountability procurement to facilitate suppliers' performance of social responsibilities.

The Company also developed Materials Procurement Management Measures and Supplier Assessment and Management Measures and Implementation Rules (Trial), and accordingly conducts on-site reviews and regular assessments of important suppliers of wind power and natural gas transport equipment. The supplier procurement process and results are published on the Hebei Provincial Bidding Website (http://www.hebeibidding.com.cn/).

NUMBER OF MAJOR SUPPLIERS TO SUNTIEN BY REGION IN 2017

Region	HECIC New-energy	Hebei Natural Gas	Headquarters and other second-tier subsidiaries of Suntien
China	51	152	128
America	0	0	1
Europe	0	0	1
Total	51	152	130



INDUSTRY UPSTREAM COOPERATION

In 2017, Suntien focused on the standardized development of its supplier management system. In accordance with the internal control manual and in view of adjustments to departmental responsibilities, Hebei Natural Gas developed effective measures for supplier management and assessment. With the Supplier Management System as the basic system, HECIC New-energy has adopted a complete three-level management system: level 1 is the basic system for supplier management; level 2 comprises supplier management measures for various business areas; and level 3 provides detailed procurement rules for various business areas. The Supplier Management System mainly regulates supplier management including the selection, supervision, assessment, maintenance and removal of suppliers. Subject to the Company's basic supplier management system, the functional departments, branches and subsidiaries of the Company exercise their duties and powers to manage suppliers in accordance with their assigned responsibilities.

COMMUNICATION WITH SUPPLIERS

Suntien has always strived to build a good supply chain partnership with a spirit of openness, cooperation, exchange and win-win outcomes. Following a philosophy of mutual growth, it conducts sustainable cooperation and exchange with all suppliers through communication, innovation, respect and sharing of strengths.

Suntien values communication with high-quality suppliers to realize mutual improvements in technology, management and product quality. It conducts in-depth communication with industry leaders such as GE, NGC, Vestas and Goldwind, has consolidated a solid foundation for cooperation, and seeks to further strengthen exploration and cooperation in the area of renewable energy. Suntien strives to create a greater space for cooperation, carries out all-around multi-dimensional close cooperation, and is conducting further in-depth communication and cooperation with suppliers in respect to overseas development and wind power operation and maintenance to realize mutual benefits.

Case study: HECIC New-energy conducts wind turbine technical exchange with GE and NGC

On 22 February 2017, HECIC New-energy conducted technical exchanges on wind turbines with GE and NGC in Shanghai and Nanjing, respectively. The exchange involved comprehensively communication with technical staff from GE and NGC in areas including digital applications for wind turbines, technical challenges and solutions for flexible towers, and the operational maintenance and monitoring of wind turbine gearboxes. The exchange provided insights to the development status of wind turbines and related large parts, and created a solid foundation for the bidding, production and operational maintenance of wind turbines in future.

ENVIRONMENTAL IMPACT CONTROL

A healthy environment is central to China's goal of building a moderately prosperous society by 2020. In response to adjustments to the national energy strategy, Suntien continues to take "Developing clean energy, building a harmonious home" as its primary mission. It has therefore accelerated the build-up of wind resource reserves, resulting in rapid growth of its installed capacity, continued improvements to operational management, and significantly increased utilization hours of its wind farms. It actively advanced the construction of a natural gas infrastructure, continued to develop the downstream user market, developed the CNG and LNG business in an orderly and careful manner, and actively built a multi-source gas supply system. While accelerating the development of clean energy, Suntien places great emphasis on conserving resources, protecting the environment, and minimizing the ecological impact of its activities.

ENVIRONMENTAL IMPACT CONTROL

USE OF RESOURCES

Generally, energy development will cause the emission of air pollutants. The dual pressures of energy and environmental protection created space for the development of new energy. The resources consumed by Suntien include electricity, natural gas, liquefied gas, gasoline and diesel. In order to achieve the goals of saving energy, reducing emissions, lowering costs, improving performance, protecting environment and building a resource-conserving enterprise, Suntien has formulated Energy Saving and Emission Reduction Management Measures and established a leading group responsible for decision-making on major matters concerning energy savings and emissions reduction. The measures stipulate that the Company shall incorporate energy-saving and emissions reduction objectives into its annual work plans, implement energy-saving and resource consumption reductions in its offices, give priority to procuring energy-efficient office equipment, follow a philosophy of saving energy and reducing emissions while preparing feasibility reports and technology proposals for new construction projects, and adopt measures to eliminate construction waste. The Company also promotes the adoption of new materials, processes, technologies and equipment and strives to eliminate "backward" processes and equipment.

To further strengthen the management and steady, safe and cost-effective operation of technological upgrade projects and improve technical equipment, Suntien has formulated Technological Upgrading Project Management Measures. The scope of technological upgrade includes production processes, technologies, testing equipment and methods, research and development and management.

To effectively implement energy saving and emissions reduction requirements, HECIC New-energy also developed Energy Saving and Emission Reduction Management Measures for its subsidiaries. These present clear control indicators for saving energy and reducing emissions, for strengthened management, and for the division of tasks and accountability. It accelerated technological progress and technological upgrading, explored the potential of energy saving and emissions reduction, improved energy utilization efficiency, and reduced pollutant emissions to ensure a continuous implementation of energy savings and emissions reduction.

Hebei Natural Gas also formulated Energy Saving and Emission Reduction Management Measures in which energy savings and emissions reduction indicators are incorporated into its performance assessment system. Entities and individuals which have energy saving and emissions reduction measures in place and have made prominent progress in technical development for consumption and emissions reduction and promotion will be recognized and rewarded, and those failing to perform in respect to energy saving and emissions reduction and causing substantial loss to the Company will be punished.

Additionally, Hebei Natural Gas formulated Energy Management Measures which aim to strengthen water conservation management and supervision, strictly control consumption of energy and resources, promote the application of new technologies, processes, equipment and materials, advance reasonable utilization, and improve energy utilization efficiency and economic benefits to support sustainable development and environmental protection.

Management structure of Suntien for energy saving and emissions reduction

Energy Saving and Emission Reduction Working Group

Head: President
Deputy Head: Vice President in Charge of Planning, Vice President in Charge of Production Safety, Chief Accountant
Members: Manager of Business Planning Department, Manager of Financial Management Department, Manager of Safety Production Department

Energy Saving and Emission Reduction

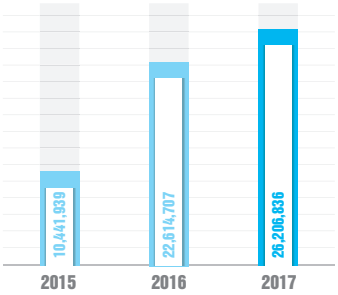
Director: Manager of Safety Production Department
Members: Relevant Personnel at Business Planning Department, Financial Management Department, Safety Production Department

ENVIRONMENTAL IMPACT CONTROL

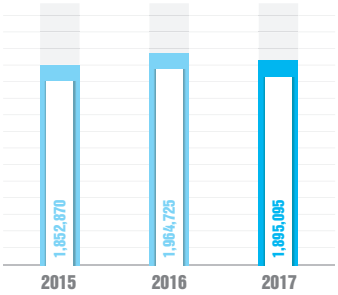
Energy type (unit)	Consumption in 2015	Consumption in 2016	Consumption in 2017
Energy consumption for an output value of RMB10,000 (standard coal/tons)	0.0107	0.0137	0.0095
Greenhouse gas emissions (tons)	15,652	28,149	32,240
Emission of carbon dioxide for an output value of RMB10,000 (ton/output value of RMB10,000)	0.0370	0.0642	0.0457

Energy Consumption of Suntien from 2015 to 2017

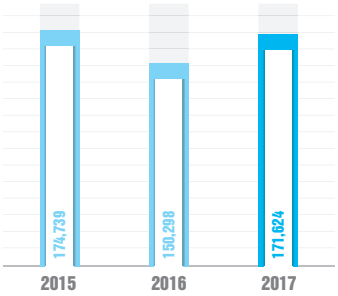
Electricity consumption from 2015 to 2017 (kWh)



Gasoline consumption 2015 to 2017 (litre)

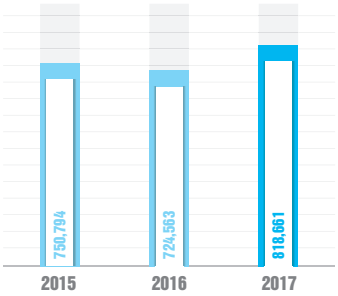


Diesel consumption 2014 to 2017 (litre)

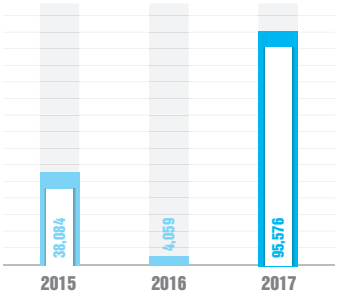


* The scope of diesel consumption was adjusted in 2016 to no longer include the 574,448 liters of diesel consumed by contractors.

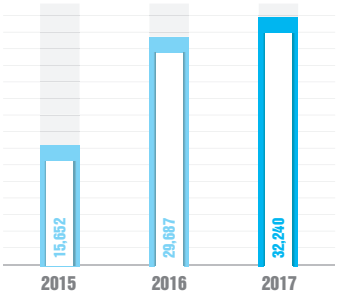
Natural gas consumption from 2015 to 2017 (cubic metre)



Liquefied petroleum gas consumption from 2015 to 2017 (kilogram)



Greenhouse gas emissions from 2015 to 2017 (ton)



Case study: Joint research and development of industry load absorption distributed renewable energy in Yulai

Using the China-Denmark RED renewable energy demonstration project as a basis, in 2015 HECIC New-energy established a joint provincial research and development technology project for industry load absorption distributed renewable energy in Yulai. The main objective was to develop an intelligent microgrid management system applicable to flexible connection with various renewable energy sources using modularized microgrid management technology, including complete communication, control, operation and testing platforms. Based on the intelligent microgrid management system, an intelligent microgrid demonstration project meeting the requirements for a high percentage of renewable energy connection in a industrial power system was established.

By combining information such as the climatic conditions in wind farm and photovoltaic station areas, wind and photovoltaic power estimates and actual operational data, power generation was increased by 4.81%. By connecting to an energy storage system and stabilizing the output power of renewable energy, the losses caused by abandoning wind power and curbing new installed capacity decreased by 1% on an annual basis. It will maintain the rate of return for the project by giving priority to the consumption of renewable energy first.

Case study: Upgraded compressor recovery process to reduce natural gas waste

In 2017, the inspection process revealed to operators of Hebei Natural Gas that Nuoweier compressors experienced a pressure increase after shutdown, causing air to return to the recovery tanks and resulting in certain operation risks and wastage of natural gas. Based on calculations, emissions resulting from this issue reached 400 cubic metres per day. The operation protection department proceeded to revise the workflow and process of the compressor recovery tanks, which reduced natural gas emissions after compressors shutdowns. Following the upgrade, 40-50 cubic metres of natural gas may be recovered for each shutdown, effectively eliminating natural gas waste and achieving the goals of safe operation and saving energy.

ENVIRONMENTAL IMPACT CONTROL

WASTE MANAGEMENT

Emissions management and comprehensive utilization of waste are matters of ongoing concern to Suntien. It developed Waste Materials Disposal Management Measures to efficiently carry out the disposal of waste materials in accordance with the principle of "repairing old and waste materials, coordinated management and concentrated disposal" in a legally compliant and efficient manner. It also regulates the disposal of waste materials to reduce overstocks of obsolete materials and improve its economic benefits.

Hebei Natural Gas developed its Equipment Management Measures and Environmental Protection Management Measures, and HECIC New-energy developed its Waste Materials Disposal Management Measures, to actively promote the harmless disposal of waste, reduction of waste and conversion of waste into resources in the interests of reducing environmental pressure and pollution.

Suntien engages third parties to collect, recycle and dispose of the waste generated by construction and operation on a centralized basis, and ensures that all waste is disposed in accordance with the law. For construction wastes such as broken bricks, waste sand and waste concrete, Suntien has adopted a management method of centralized storage and regular disposal by contractors. Waste packaging materials are recycled. For domestic garbage, waste oil, waste liquid, waste batteries and waste devices generated by operations, the Company has adopted different treatment methods, including delivery to refuse stations for centralized disposal, recycling by qualified third parties, and centralized management by the Company's materials department. Except for some smoke and waste water generated by the inspection and repair of equipment, Suntien generates no harmful emissions during its operations.

ECOLOGICAL PROTECTION

To reduce the adverse impact of its operations on the environment, Suntien combines the development and utilization of resources with ecological protection measures. While ensuring the safety and stability of construction and operations, it carries out environmental protection in view of local social and environmental characteristics and strives to exist in harmony with nature.

In the construction and operation of wind farms, the Company fully complies with PRC policies and environmental protection standards, carries out environment impact assessments, continues to improve the monitoring of indicators including dust and noise, and improves the environment of the plant and surrounding areas by conducting tree planting to reduce carbon emissions, noise and dust, and green land reclamation.

In 2017, Suntien's total investment in environmental protection amounted to RMB4,114,300. Funds were utilized for restoration of vegetation damaged during the construction process and green land reclamation, expenses for the construction and maintenance of sewage treatment facilities, and cleaning and transportation expenses for waste oil and waste liquids.

Types and treatment methods of waste generated by Suntien during construction and operational phases		
Stage	**Source**	**Treatment method**
Construction period	Construction debris including broken bricks, waste sand and waste concrete	Stored in a single location before regular treatment by contractors
	Packaging materials (wood, plastic)	Recycling for reuse
Operational period	Domestic waste	Transported to refuse stations for centralized processing
	Waste oil and waste liquid	Recycling by qualified companies
	Used batteries and waste parts and components	Managed by the Company's supply department in a centralized manner

CONTRIBUTION TO SOCIAL DEVELOPMENT

While maintaining rapid growth, Suntien also fulfills its social responsibility as a state-owned enterprise and listed company. We provide strong support to local economic, social and cultural development, and carry out a wide range of charity events such as providing financial assistance to students and those in financial difficulty. It is our responsibility and obligation to strive toward harmonious development with society, and our efforts to this goal has been recognized by several communities and institutions.

CONTRIBUTION TO SOCIAL DEVELOPMENT

TARGETED POVERTY ALLEVIATION

Suntien actively responds to the government's call for "in-depth implementation of targeted poverty alleviation and getting rid of poverty". In accordance with the requirements of the Targeted Poverty Alleviation Working Group of Hebei Province, in 2017 Suntien sent a working group to Leguo Village which implemented arrangements made by the Company's party committee, and the party committees of Fengning County and Huangqi Town. With the interests of villagers in mind, the group worked closely with local village management to promote targeted poverty alleviation.

Leguo Village in Huangqi Town, Fengning County is located in the Jieba area, 50 kilometers from the north of the county. The village has 179 poverty-stricken households with 466 people and the annual per capita net income is RMB2,100. With its large, barren land area, sparse population and cold climate, the village lies nearly 1,000 meters above sea level. Lack of human and financial resources is the root cause of the poverty there. Suntien visited the village multiple times and customized a suitable assistance plan. In 2017, Suntien's working group continued its activities of 2016, partnering with the village government to prepare a Three-year Plan on Targeted Poverty Alleviation in Leguo Village and the Working Plan of the Working Group in Targeted Poverty Alleviation. It removed the accounts for 62 extant poverty-stricken households, and set up accounts for 149 re-identified poverty-stricken households. Company employees paired up with poverty-stricken households, with each employee assisting five of the latter, so that each poverty-stricken household is assigned a different person responsible for assistance and no household will be left behind in escaping poverty.

Contribution to Social Development

In 2017, Suntien carried out a series of targeted poverty alleviation projects which improved the appearance and environment of Leguo Village and the productivity and living conditions of villagers:

- Visiting poverty-stricken households and households in grave difficulty and special groups (a total of 215 households, including elderly persons of no family, and people receiving subsidies for serious illness, disability and special support) and giving them rice and oil;
- Capturing opportunities to implement industrial assistance;
- Improving infrastructure. In 2017, the Company continued to purchase and install solar street lamps at Leguo Main Village, Kulongshan natural village and Zhaihugou natural village, achieving full coverage;
- Donating clothing to villagers and stationery to the village school;
- Pairing up with villagers and implementing construction of low-level organizations.

CONTRIBUTION TO SOCIAL DEVELOPMENT

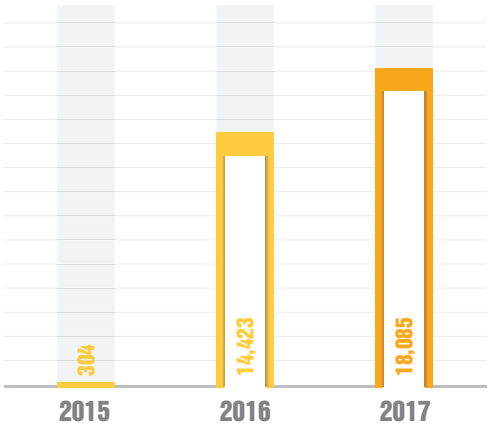
Suntien hopes that through these and other ongoing efforts, the village will break free of its cycle of poverty in the near future. Identifying an industrial pillar for the local economy will be the key to the village becoming moderately prosperous and economically self-sufficient.

COMMUNITY INVOLVEMENT

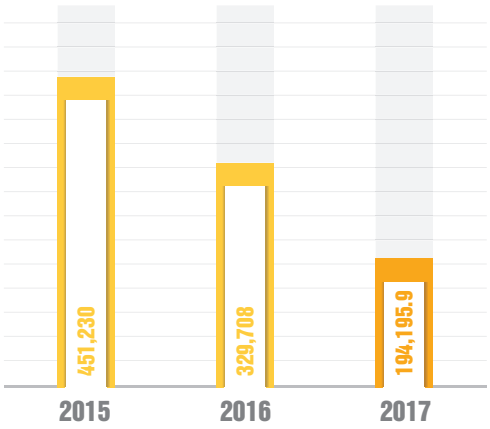
Suntien strives to maintain friendly relationships with local communities. In 2017, our charity events focused on supporting compulsory education in poor areas and encouraging poor students to gain exposure to the outer world. Suntien leverages its industrial advantages to construct power farms and stations in accordance with local conditions, provides donations to villages, and creates job opportunities for local people. In 2017, Suntien invested RMB194,195.9 in charity events, with volunteer services of 18,085 hours.

Helping teenagers and children in poor mountainous areas is a critical component of Suntien's charity cause. Over the years, Suntien has paired up with a number of secondary and primary schools in poor areas to help stimulate students' potential abilities and encourage them to gain exposure to the outer world. In 2017, Suntien visited the central primary school of Yangezhuang Town, Leting County to improve students' knowledge of new energy.

Number of hours spent on charity activities from 2015 to 2017 (hours)



Charity expenses from 2015 to 2017 (RMB)



CONTRIBUTION TO SOCIAL DEVELOPMENT

Case study: Zhangjiakou Branch of HECIC New-energy actively assists Kangbao County in carrying out photovoltaic poverty alleviation which regarded local cooperative as the investment entities

In response to deployments and arrangements for poverty alleviation in Kangbao County, specialists from the Zhangjiakou Branch of HECIC New-energy have been stationed at Dongmengjiadi Village, Mandetang Township, Kangbao County since 2016 to conduct poverty alleviation work.

In accordance with the principle of "respect reality and local conditions", the development of photovoltaic power generation has been the focus of the effort. As a result, the Dongmeng Photovoltaic Agricultural Cooperative was established in Dongmengjiadi Village to invest in the construction of a household distributed photovoltaic power station. The station commenced operation and was connected to the power grid in January 2017. It was the first power station for poverty alleviation in Kangbao County, and it has made positive contribution the villagers' goal of becoming moderately prosperous.

Case study: "New energy in the Classroom"-Charity journey of party volunteers of the Offshore Wind Power Company

In June 2017, volunteers from the Offshore Wind Power Company visited the central primary school of Yangezhuang Town, Leting County to teach students about new energy and how to utilize and develop energy. The childrens' interest was cultivated with vivid explanations of the features of new energy, the theory of wind power generation, and the social value of new energy development. Suntien also brought school bags, pens, books and other supplies to the children.

Case study: Staff from Ruoqiang Luobuzhuang Wind Farm of Suntien in Xinjiang visited Yakewusitang Village

Yakewusitang Village, Tieganlike Town, Ruoqiang County, is a subject of poverty alleviation for the wind farm at Luobu Village, Ruoqiang Town in Xinjiang. Wind farm staff members have participated in art performances and assisted local government and police in anti-terrorism and stability-maintenance activities. In 2017, Suntien's Northwest Region responded to China's targeted poverty alleviation policies by working with local government to develop and implement effective plans. Li Ping, deputy major of Ganlike Town, expressed her thanks to the wind farm at Luobu Village, Ruoqiang Town and recognized its long-term effective poverty alleviation work. She said that she hoped to strengthen cooperation with China Suntien Green Energy Corporation Limited to jointly maintain social stability and support its long-term safe and steady growth.

OUTLOOK FOR 2018

Looking ahead, 2018 will undoubtedly be another year of opportunity and hope for all new energy enterprises. With China continuing to develop in a green direction and its energy infrastructure undergoing gradual adjustment, the new energy industry will enter a long-term period of stable development.

For 2018, "green" will remain the fundamental theme of Suntien's activities. Suntien will endeavour to enhance its capacity to supply clean energy, improve the national wind power capacity, promote construction of projects including offshore wind power and wind power hydrogen, enrich green energy development, improve the efficiency of natural gas supply services, and continue to participate in the adjustment of China's energy infrastructure.

"Development" will be another key word for the 2018. We hope to further promote China's sustainable development while maintaining the rapid growth pace of existing enterprises. Suntien will increase its participation in social development on the basis of contributing clean energy and boosting its engagement in activities such as targeted poverty alleviation. It will design and implement projects to enhance their social benefits, and make use of industry resources and enterprise resources to drive development in the Beijing-Tianjin-Hebei region. Internally, Suntien will strive to achieve a win-win situation between staff and corporate development by expanding channels for promotion and providing more supports for career progression.

"Interaction" will also characterise Suntien's activities in 2018. Suntien will continue to regard new energy as the basis for its future development, will participate in more industrial activities and actions, and will try to create a more favourable environment for both its own future and industrial progress as a whole. It will open more opportunities for communication with important upstream manufacturers in the industry and increase its application of equipment such as wind turbines to improve production efficiency. It will seek more in-depth cooperation with local governments, and enhance the interactions of both parties to better utilise enterprise resources for local development and new energy's contribution to it. Suntien will enrich communication with internal staff and enhance its effectiveness so that it may better understand staff needs and expectations, and determine ways to satisfy these via interaction.

Finally, 2018 will be a year of challenges. The new energy industry's excellent development prospects will attract more competitors. Suntien hopes to be able to build a more solid foundation for development through improving its innovative and protective systems, and with its willingness to embrace a brighter future.

ESG INDICATOR INDEX

Indicator for disclosure		Page
Scope: Environment		
A1: Emissions		
General Disclosure		68
A1.1	The types of emissions and respective emissions data	68
A1.2	Greenhouse gas emissions in total (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	70
A1.3	Total hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	72
A1.4	Total non-hazardous waste produced (in tonnes) and, where appropriate, intensity (e.g. per unit of production volume, per facility)	72
A1.5	Description of measures to mitigate emissions and results achieved	68
A1.6	Description of how hazardous and non-hazardous wastes are handled, reduction initiatives and results achieved	72
A2: Use of Resources		
General Disclosure		68
A2.1	Direct and/or indirect energy consumption by type (e.g. electricity, gas or oil) in total (kWh in '000s) and intensity (e.g. per unit of production volume, per facility)	70
A2.2	Water consumption in total and intensity (e.g. per unit of production volume, per facility)	68
A2.3	Description of energy use efficiency initiatives and results achieved.	68
A2.4	Description of whether there is any issue in sourcing water that is fit for purpose, water efficiency initiatives and results achieved.	68
A2.5	Total packaging material used for finished products (in tons) and, if applicable, with reference to per unit produced.	Not applicable
A3: The Environment and Natural Resources		
General Disclosure		72
A3.1	Description of the significant impacts of activities on the environment and natural resources and the actions taken to manage them.	72
Scope: Social		
Employment and Labour Practices		
B1: Employment		

Indicator for disclosure		Page
General Disclosure		52
B1.1	Total workforce by gender, employment type, age group and geographical region	53
B1.2	Employee turnover rate by gender, age group and geographical region	54
B2: Health and Safety		
General Disclosure		36
B2.1	Number and rate of work-related fatalities.	38
B2.2	Lost days due to work injury.	38
B2.3	Description of occupational health and safety measures adopted, how they are implemented and monitored.	36
B3: Development and Training		
General Disclosure		55
B3.1	The percentage of employees trained by gender and employee category (e.g. senior management, middle management).	56
B3.2	The average training hours completed per employee by gender and employee category.	56
B4: Labor Standards		
General Disclosure		52
B4.1	Description of measures to review employment practices to avoid child and forced labor	52
B4.2	Description of steps taken to eliminate such practices when discovered	52
Operating Practices		
B5: Supply Chain Management		
General Disclosure		62
B5.1	Number of suppliers by geographical region	62
B5.2	Description of practices relating to engaging suppliers, number of suppliers where the practices are being implemented, how they are implemented and monitored	62

ESG INDICATOR INDEX

Indicator for disclosure		Page
B6: Product Responsibility		
General Disclosure		42
B6.1	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
B6.2	Number of products and service related complaints received and how they are dealt with.	45
B6.3	Description of practices relating to observing and protecting intellectual property rights.	47
B6.4	Description of quality assurance process and recall procedures.	42
B6.5	Description of consumer data protection and privacy policies, how they are implemented and monitored.	46
B6.6	Percentage of total products sold or shipped subject to recalls for safety and health reasons.	Not applicable
B7: Anti-corruption		
General Disclosure		12
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.	12
B7.2	Description of preventive measures and whistle-blowing procedures, how they are implemented and monitored.	12
Community		
B8: Community Investment		
General Disclosure		76
B8.1	Focus areas of contribution (e.g. education, environmental concerns, labour needs, health, culture, sport)	76-78
B8.2	Resources contributed (e.g. money or time) to the focus area	79

GRI INDEX

Indicators		Pages
GRI 101		
2.1-2.7		1, 20, 21
GRI 102		
102-1	Name of the organization	6
102-2	Activities, brands, products, and services	6
102-3	Location of headquarters	6
102-4	Location of operations	6
102-5	Ownership and legal form	6
102-6	Markets served	6
102-7	Scale of the organization	6
102-8	Information on employees and other workers	53, 54
102-9	Supply chain	62
102-10	Significant changes to the organization and its supply chain	1
102-11	Precautionary Principle or approach	12
102-12	External initiatives	29
102-13	Membership of associations	29
102-14	Statement from senior decision-maker	4-5
102-16	Values, principles, standards, and norms of behavior	4-5
102-18	Governance structure	12-13
102-40	List of stakeholder groups	19
102-41	Collective bargaining agreements	59
102-42	Identifying and selecting stakeholders	19
102-43	Approach to stakeholder engagement	19
102-44	Key topics and concerns raised	19
102-45	Entities included in the consolidated financial statements	1
102-46	Defining report content and topic Boundaries	1
102-47	List of material topics	21
102-48	Restatements of information	1
102-49	Changes in reporting	1
102-50	Reporting period	1
102-51	Date of most recent report	1
102-52	Reporting cycle	1
102-53	Contact point for questions regarding the report	1
102-54	Claims of reporting in accordance with the GRI Standards	1
102-55	GRI content index	90
102-56	External assurance	none

GRI INDEX

Indicators		Pages	Omission
GRI 201: Economic Performance			
	Management Approach	24	none
201-1	Direct economic value generated and distributed	26-27	none
201-2	Financial implications and other risks and opportunities due to climate change	24	none
GRI 203: Indirect Economic Impacts			
	Management Approach	78	none
203-1	Infrastructure investments and services supported	78	none
203-2	Significant indirect economic impacts	76-78	none
GRI 204: Procurement Practices			
	Management Approach	62	none
204-1	Proportion of spending on local suppliers	62	none
GRI 205: Anti-corruption			
	Management Approach	12	none
205-1	Operations assessed for risks related to corruption	12	none
205-2	Communication and training about anti-corruption policies and procedures	12	none
205-3	Confirmed incidents of corruption and actions taken	12	none
GRI 302: Energy			
	Management Approach	68	none
302-1	Energy consumption within the organization	70	none
302-2	Energy consumption outside of the organization	70	none
302-3	Energy intensity	70	none
302-4	Reduction of energy consumption	68	none
302-5	Reduction in energy requirements of products and services	—	Not applicable
GRI 304: Biodiversity			
	Management Approach	72	none
304-1	Operational sites owned, leased, managed in, or adjacent to, protected areas and areas of high biodiversity value outside protected areas	72	none
304-2	Significant impacts of activities, products, and services on biodiversity	72	none
304-3	Habitats protected or restored	none	none
304-4	IUCN Red List species and national conservation list species with habitats in areas affected by operations	none	none
GRI 305: Emissions			
	Management Approach	68	none
305-1	Direct (Scope 1) GHG emissions	70	none
305-2	Energy indirect (Scope 2) GHG emissions	70	none
305-4	GHG emissions intensity	70	none
305-6	Emissions of ozone-depleting substances (ODS)	none	none
305-7	Nitrogen oxides (NOX), sulfur oxides (SOX), and other significant air emissions	none	none

Indicators		Pages	Omission
GRI 306: Effluents and Waste			
	Management Approach	72	none
306-1	Water discharge by quality and destination	72	none
306-2	Waste by type and disposal method	72	none
306-3	Significant spills	none	none
306-4	Transport of hazardous waste	72	none
306-5	Water bodies affected by water discharges and/or runoff	none	none
GRI 307: Environmental Compliance			
	Management Approach	67	none
307-1	Non-compliance with environmental laws and regulations	none	none
GRI 401: Employment			
	Management Approach	52	none
401-1	New employee hires and employee turnover	53-54	none
GRI 403: Occupational Health and Safety			
	Management Approach	36	none
403-1	Workers representation in formal joint management–worker health and safety committees	36	none
403-2	Types of injury and rates of injury, occupational diseases, lost days, and absenteeism, and number of work-related fatalities	36	none
403-3	Workers with high incidence or high risk of diseases related to their occupation	38	none
403-4	Health and safety topics covered in formal agreements with trade unions	none	none
GRI 404: Training and Education			
	Management Approach	55	none
404-1	Average hours of training per year per employee	56	none
404-2	Programs for upgrading employee skills and transition assistance programs	56	none
GRI 405: Diversity and Equal Opportunity			
	Management Approach	52	none
405-1	Diversity of governance bodies and employees	52	none
GRI 413: Local Communities			
	Management Approach	78	none
413-2	Operations with significant actual and potential negative impacts on local communities	78	none
GRI 416: Customer Health and Safety			
	Management Approach	44	none
416-1	Assessment of the health and safety impacts of product and service categories	—	Not applicable
416-2	Incidents of non-compliance concerning the health and safety impacts of products and services	none	none

FEEDBACK

Dear readers,

Thank you for taking the time to read the Environmental, Social and Governance Report of China Suntien Green Energy for 2017. We eagerly look forward to hearing your feedback. Please send us your completed questionnaire by mail, e-mail after scanning, or by fax, or call us directly to offer your opinions.

Address: Block A, Yu Yuan Plaza, No. 9 Yuhua West Road, Shijiazhuang City, Hebei Province, PRC
Postal code: 050000
Email: esg@suntien.com

1. **Which type of Suntien stakeholder is your employer?**
   ☐ Shareholders ☐ Employees ☐ Supplier ☐ User ☐ Government ☐ Community ☐ Bank
   ☐ Academic institutions ☐ Other (please specify)

2. **Have you read the Environmental, Social and Governance Report of China Suntien Green Energy? (If your answer is no, please ignore items 3, 4 and 5)**
   ☐ Yes ☐ No

3. **If yes, did you read the print version or the electronic version?**
   ☐ Print ☐ Electronic

4. **Which version do prefer to read?**
   ☐ Print ☐ Electronic

5. **Your evaluation of the 2017 ESG Report:**
   - Readability (easy to understand, well designed, intriguing, easy to locate the required information)

   ☐ 3 points (good) ☐ 2 points (mediocre) ☐ 1 point (poor)
   - Credibility (whether the information in the report is true and reliable)

   ☐ 3 points (good) ☐ 2 points (mediocre) ☐ 1 point (poor)
   - Information integrity (APP (China) taking into account both positive and negative aspects of performance, whether it meets your information needs)

   ☐ 3 points (good) ☐ 2 points (mediocre) ☐ 1 point (poor)

In addition to the disclosures already made in the report, what else would you like to see?

The reporting team of the 2017 ESG Report of China Suntien Green Energy

April 2018