



# 2016 Sustainable Development Report

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## About The Report

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Following the principle of objectivity, standardization, transparency and comprehensiveness, this report aims to explicitly communicate the Company's concepts about sustainable development, action plans and performance, for stakeholders. It also serves as a systematic response by giving attention to the sustainable development of the Company paid by all parties.

### Scope

The time span was from Jan. 1 to Dec. 31, 2016. Some content may look back upon past years to make the report more systematic.

### Frequency

This is an annual report.

### Reference

The report was compiled based on the Hong Kong Stock Exchanges *Listing Rules and Guidance Appendix 27: Environmental, Social and Governance Reporting Guide*, as well as Shenzhen Stock Exchange *Social Responsibility Guidelines for Listed Companies*. It also draws extensive reference from Global Reporting Initiative (GRI) *Sustainability Reporting Guidelines (G4)*, the Chinese Academy of Social Sciences (CASS) *China Corporate Social Responsibility*

*Reporting Guidelines (CASS-CSR3.0)* and other standards and guidelines for corporate social responsibility reporting from home and abroad.

### Specification on data

All financial data in this report are sourced from the Annual Report, expressed in RMB unless otherwise indicated.

### Promise

The report was examined and approved by Goldwind's board of directors. It promises not to contain any false information and misleading statements.

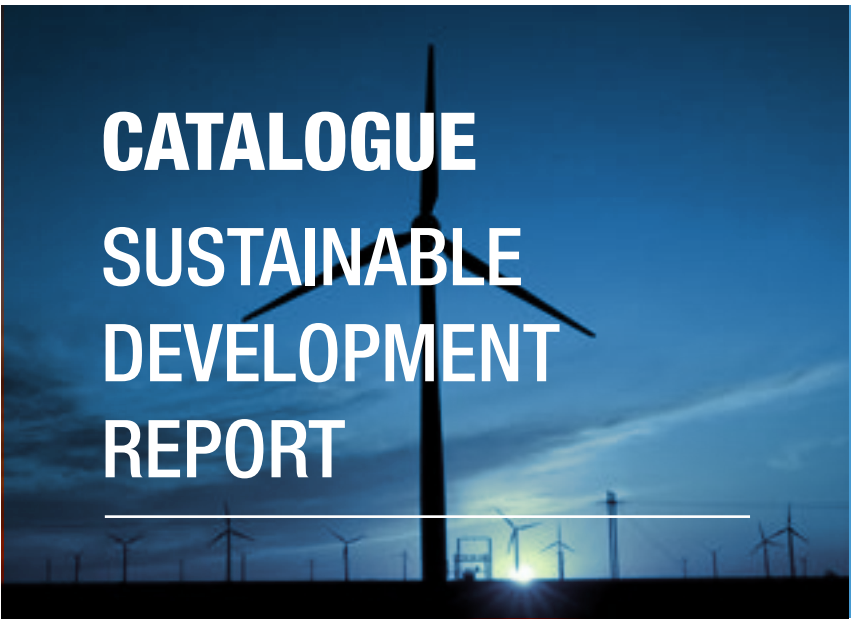
### Note on addressing

For convenience in reading, Xinjiang Goldwind Science & Technology Co., Ltd. will also be referred to as Goldwind, the Company, the group, or we.

### Channel to get the report

The report has both a Chinese and English edition, each available in print and PDF. Please log onto [www.goldwind.com.cn](http://www.goldwind.com.cn), [www.cninfo.com.cn](http://www.cninfo.com.cn) or [www.hkexnews.hk](http://www.hkexnews.hk) to view.





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# Message from the Chairman



The fundamental difference between a good company and a great one is that a good company can continue to develop good technology and products that provide benefits and value to the customer; and a great company, in addition to the above, will do its utmost to make the world we lived better.

Wu Gang, Chairman

Global accumulated installed capacity by the end of 2016

38 GW

As one of the first companies specialized in R&D and manufacturing equipment in wind power industry, Goldwind has existed for 18 years. We progressed from reliance on imported technologies to independent research and development of MW class wind turbine generators (WTGs); from focusing on domestic market to going global; from providing complete sets of wind turbine generators to offering the overall solution of wind turbine generators. The Company's every step has been written into the development of China's wind power industry, characterized by diligent exploration, courageous innovation and hard endeavor.

Number of turbines installed

25,800

Against the backdrop of global resource shortage and climate change, Goldwind provides green and low-carbon energy to help cope with and resolve social problems. And this is the point of its existence and development. At its infancy, we established our mission as "Preserving blue skies and white clouds for the future" adhering firmly to the development of renewable resources. In order to change wind resources into wind energy in an efficient and reliable way, We continue increasing the R&D investment to achieve independent innovations and to successfully continue further development and improvement of the permanent magnet direct-drive WTGs based on our proprietary technology. We constantly popularize the transformation of energy applications of wind turbines in China and around the world to generate more green power and to achieve a green low-carbon energy source for the present and future. In 2016, the Company achieved a global accumulated installed capacity of 38GW, which is equivalent to the reduction of 77.79 million tons of carbon dioxide and reforest an area of 42.51 million cubic meters.

Carbon emission reduction equivalence

77.79 million tons

We pay much attention to fulfilling our social responsibilities and enthusiastically make contributions to the sustainable industrial development and social progress backed by our professional advantages and resources. We develop intelligent smart micro-grids, with the help of distributed energy access system to build intelligent city energy management platform to help the city to achieve regional integrated energy efficiency maximization. We

Rebuild forest equivalence

42.51 million m<sup>3</sup>

join hands with suppliers to construct a high-quality industrial chain by creating each part and component with craftsmanship to jointly optimize wind power products. The Company continues to complete our environmental management system to reduce the influence of wind power products on the environment in their full life circle; we set up the first national wind safety test points to drive the improvement of industry safe operation standardization; we launched the program of a green supply chain to explore and study the operation modes of supply-chain-based enterprises for energy saving and carbon reduction while accumulating the experience of green transformation for the Chinese manufacturing industries. Moreover, we carry out charity activities in communities regularly. We launched the campaign of "Wind for the Future" to help the development of education, sports, culture and health of the communities in which our companies are situated. We integrate the concepts of win-win cooperation and common development into our daily actions, to maximize the interests of the Company and its personnel as well as the shareholders, customers, suppliers and other stakeholders.

We know well that the ultimate goal of the wind power industry is to bring about affordable and reliable green power to every household, and this is also our aspiration. To realize this dream, in the future, we will continue to draw nourishment from the development at the time and weed through the old to create the new. With our resources and influence, we will ensure that wherever we go, we will remember our social responsibility. We will make more efforts in culture, education, health, sports, environmental protection and other aspects, to promote social civilization and generate social positive power.

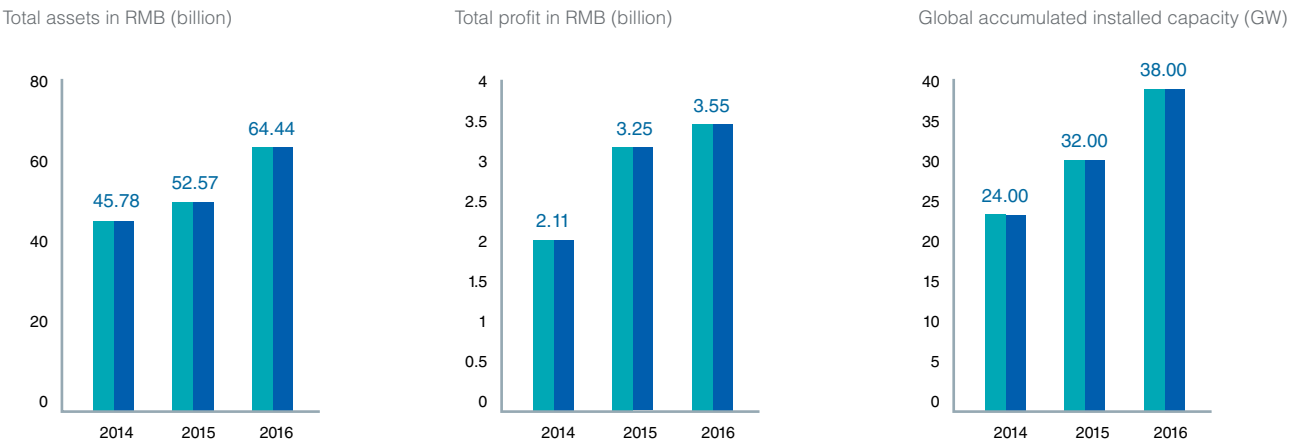
We hope that all stakeholders can follow and support the development of Goldwind and continue to create a bright future of sustainable development together!

Wu Gang, Chairman





# About Us



## Company info

Goldwind was established in Urumqi, Xinjiang, the PRC in 1998, become a joint stock limited liability company in 2001, and its ordinary shares were listed on the Small and Medium-sized Enterprise Board of Shen Zhen Stock Exchange in December 2007(SZSE: 002202) and the main board of the Hong Kong Stock Exchange in October 2010 (stock code: 2208).

Major businesses of the Company include the R&D and manufacturing of wind power equipment, wind power service, wind power farm developing and environmental protection industry. As one of China's earliest manufacturers in wind power development, the Company strives to become the world's leading provider of integrated clean energy and energy conservation solutions. Rich in experience of R&D and manufacturing of wind turbine generator systems, as well as wind farm construction, the Company not only offers high-quality wind turbine generator systems to customers, but also offers wind power services and wind farm development solutions, to fulfill the needs of our customers' from various links of the value chain in the wind power industry.

Adopting the permanent magnet direct-drive technology, the Company constantly improves and refines its product roadmap to keep pace with the rapid market growth and meet customers' varied demands. We own the 1.5MW, 2.0MW, 2.5MW, 3.0MW and 6.0MW wind turbine generators, which are capable of sustained operation in both high and low temperatures as well as in high altitude, low wind speed, coastal and other environments. In 2016, the Company's domestic newly installed capacity was more than 6.34GW which ranked first in China for six consecutive years and ranked third in the world's new installed market ranking by Bloomberg New Energy Finance at the same period.



# About us

## Business distribution

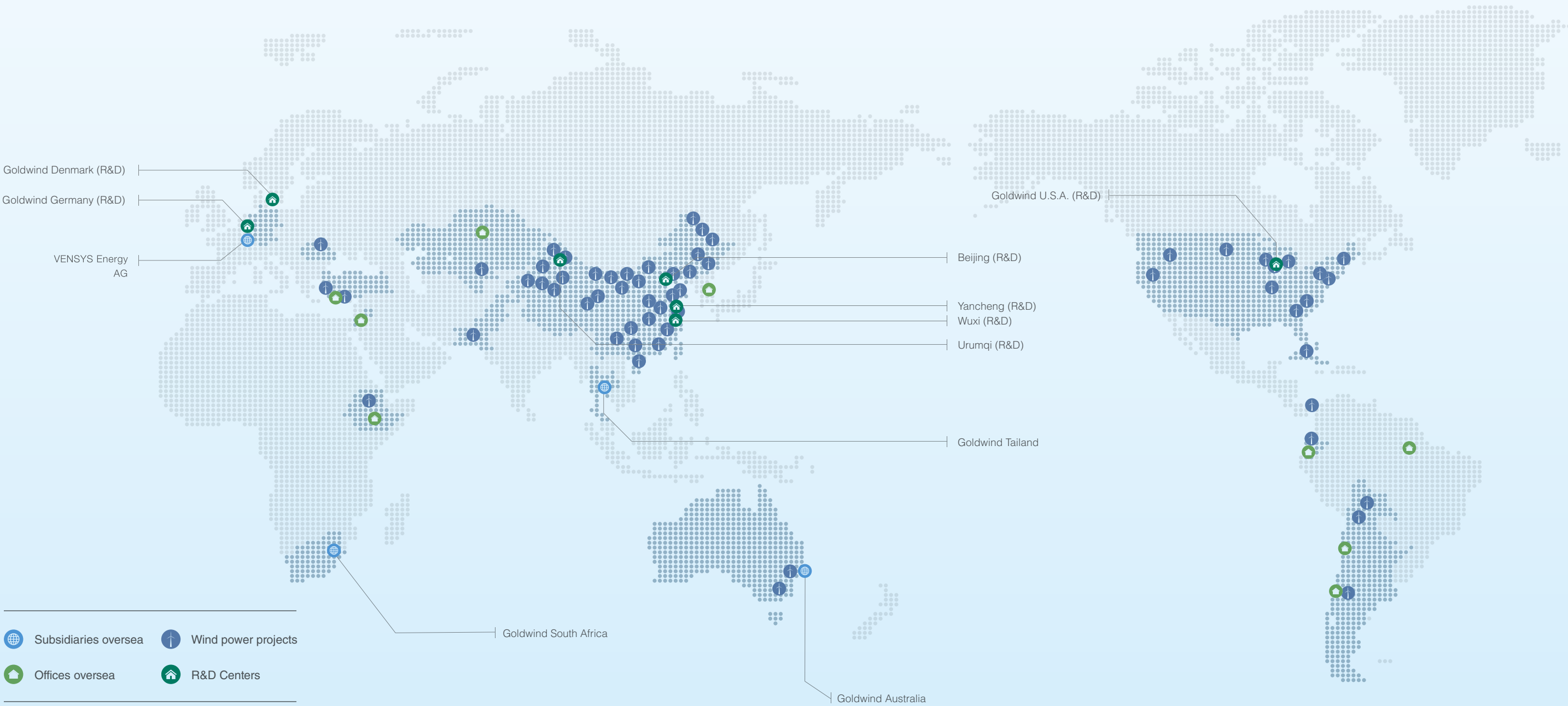
Relying on advanced technologies and products as well as having rich experiences in wind power development, construction and maintenance, Goldwind's products and services are well received in the market place. While consolidating domestic markets, it actively promotes its global strategy to expand into the international wind power market. By the end of 2016, Goldwind's installed turbines spreads 6 continents and over 20 countries..

Goldwind owns **9** WTG manufacturing bases.

Goldwind has established **7** R&D centers, hiring over **2,000** distinguished senior R&D engineers and technology engineers.

Goldwind has **200** subsidiaries, **23** direct ones and **177** indirect ones.

At the end of 2016, the Company's global accumulated installed capacity was **38GW**, spreading **6** continents and **20** countries around the world.





# About Us

## History

With the spirit of innovation as well as having a sense of social responsibility, and making contributions to humanities future, Goldwind is committed to the path of developing renewable energy. Its development in over a decade is also the epitome of China's wind power industry. The Company has always played a leading role in the industry. We have progressed from participating in wind power tests and demonstrations, to constructing wind farms by attracting government concessional loans from foreign countries. We have imported million-kilowatt class wind turbines and by following the world's advanced technologies in wind power, Goldwind now maintains its own independent research and development for the MW class wind turbines. In order to realize and expand our market industrialization, we have progressed from focusing just on our domestic market to expanding into global market; from providing a complete set of wind power turbine generators to offering the overall solution of wind turbine generator systems. Every step of the Company is manifesting its mission to "Preserving blue skies and white clouds for the future". Amid the trend of global energy reform and climate change, Goldwind is committing itself to a better future for mankind through the development of clean energy and facilitating solutions to solve social and environmental problems.

### Timeline

#### 1998-2005 Entrepreneurship

**Business area: complete set of wind turbine generator**

##### Events:

- 1998-2000 Goldwind successively undertook three national scientific research projects, including The 863 Program and National Key Technology Research and Development Program of China during the "10th Five-Year Plan";
- 2002 Goldwind established China's first wind turbine assembly plant in Urumqi, which was also the largest base for R&D and production of wind turbine generator;
- 2003 Goldwind signed a contract with Germany VENSYS Energy AG for the joint design and development as well as technology transfer, initiating the research and development of permanent magnet direct-drive technology;
- 2004 Goldwind won the contract for China's first concession project (100 thousand kW) in Guangdong Province .



Goldwind established China's first wind turbine assembly plant in Urumqi

#### 2006-2010 Rapid growth

**Business area: extension of the wind power business**

##### Events:

- 2007 Goldwind developed China's first seaborne 1.5MW permanent magnet direct-drive technology and was put into operation in Bohai Bay;
- 2007 Goldwind went public, listing on the Shenzhen Stock Exchange, raising funds of about 1.8 billion RMB;
- 2008 Goldwind acquired German firm, VENSYS Energy, thus becoming the first Chinese turbine manufacturer to possess its own intellectual property;
- 2008 Goldwind delivered six 750kW turbines to Cuba from Tianjin, the first overseas sales;
- 2009 Goldwind's three newly developed 1.5MW permanent magnet direct-drive turbines were exported to America and achieved successful grid connection in January 2010;
- 2010 Goldwind was listed on the Hong Kong Exchanges, raising funds of about 8 billion Hong Kong dollar.



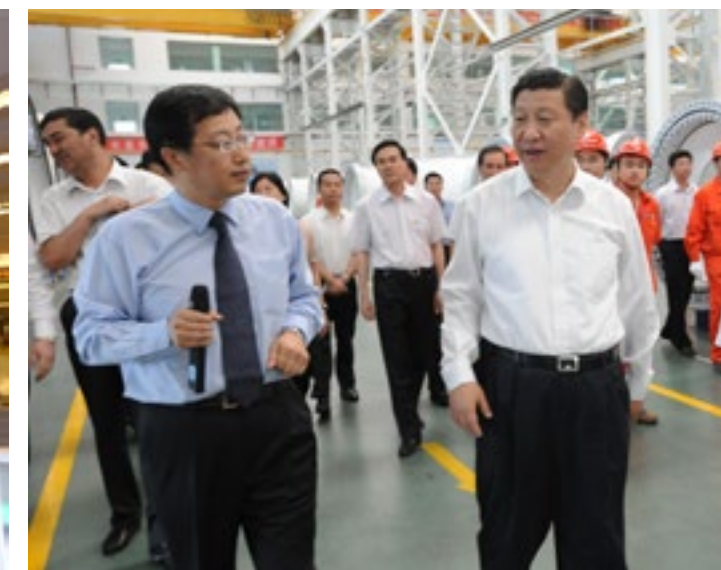
Goldwind was listed on the Hong Kong Stock Exchanges

#### 2011-till now Steady growth and transformation

**Business area: diversified business based on wind power**

##### Events:

- 2011, 2012 Goldwind was on the MIT Technology Review's list of the "50 most innovative companies in the world";
- 2013 Goldwind achieved 'Commercially Proven Status' in the North American Market, which was prescribed by the world's leading certification institution GL Garrad Hassan;
- 2014 Goldwind released the GW121/2500 and GW115/2000 wind turbine;
- 2015 Goldwind launched the 1.5VP series products as well as 120-meter flexible tower and concrete tower, its high-end technology filling a number of blanks in the domestic market ;
- 2016 Goldwind launched the new generation GW3S intelligent fan, breaking the industrial record in adaptability to low and ultra-low wind speed.



China's president Xi Jinping visits Goldwind

# About Us

## Our strategy

Goldwind devotes itself to becoming a leading international provider of integrated clean energy and energy conservation solutions. We are facing the development trend and competition layout for the wind power industry, the Company aggressively promotes energy transformation and reform to provide clients with an overall solution spanning the 'full circle of life'. It strategically stresses WTG equipment, wind power service and wind farms investment in the full industrial chain. Meanwhile, makes layout on the smart energy internet services to promote the wind power consumption; with the core of energy solutions, we build core competitiveness and drive sustainable business expansion of the Company through digitalization, internationalization, service-orientation and platform.



## Mission

Preserving Blue Skies and White Clouds for the Future

## Vision

Become a leading international provider of integrated clean energy and energy conservation solutions.

## Strategic layout

Wind power industrial chain  
Smart energy internet

## Measures

### Digitalization

Digital wind turbine farms will provide us with the capability of remote monitoring, forecasting, and security alarms as well as independent collaborative operations. It will allow us to automatically adapt to environmental changes and actively respond to the demands of grid and clients.

### Internationalization

The wind power businesses will be comprehensively internationalized to increase the sales volume overseas and provide overseas clients with all-around services including equipment, operation and maintenance and wind farm investment, etc.

### Service-orientation

Services include the macro/micro site selection at early stages of wind farms, design and engineering management, wind farm operation and maintenance in the full life circle as well as the big data of internet digital platform services.

### Platform

The Company will create the electrical interaction platform between electricity enterprises and the end users to assist clients to better manage the demands for energy consumption through the energy devices and energy management cloud platforms.

## Company culture

From accumulations of a decade of years in the wind power industry, the Company culture of Goldwind is realized through the exploration and development accumulated by the wisdom of its employees. All of our achievements have close relations with the excellent cultures of our staff, whose excellent personalities are the foundation on which the Company can play a leading role and maintain sustainable development in the challenges in future markets.

Our core value concepts are creating value and we realize our own value in life. Creating value is our pursuit that we insist on all the time to motivate the Company and staff to continue a healthy development. While realizing our own value, the Company's and our individual's achievement, drives us all to continue the pursuit for excellent development.



### Integrity and honesty

The principles that our employees insist on all the time are the foundation that the Company can survive in the intensive competition. We think that wind power is the industry of Marathon, and the Company that does business openly, with integrity and honesty and maintain its contractual promises will, in the end, achieve sound development and growth.



### Making customer success

The Company always keeps clients at the center and responds to the clients' demands as quickly as possible, and the Company would not have the sustainable development unless it continues to create the long-term value for clients and assist the client's success.



### Treating partners kindly

The Company has established a partnership with all people who agree with our mission and who would like to grow and develop with us. We do our best to provide partners with the resources they need such as product, service, technology and capital, etc. to create a good development environment for them.



### Pioneering

The achievements of the Company have close associations with the spirits of our employees such as daring to endeavor, pursuing exploration and innovation, being courageous and knowledgeable and bravely striving to initiate development. Each of our employees has the spirit of keeping pace with the times without pause and the personality of daring to make breakthroughs.



### People first

We always think that our employees who have the same objectives are the biggest wealth of the Company and the real value of an enterprise comes from the devotion and promises of each staff. The Company respects each of our employees by creating a good work environment and atmosphere for them. We encourage them to make brave decisions within their work scope so as to guarantee the employee can have the opportunity to do their job and be successful at their work, so that each of them has the capability to make their dream come true.



### Learning by doing

One cannot find real effective solutions nor have real value without practical experience. Employees are required to solve problems and provide solutions on their own but not being a keyboard man and following others regardless of their job post.



# About Us

## Award and honors

### National Science and Technology Progress Award

The project of "The Independent Innovation and Industrialization of Wind Turbine Generator Control Technology", jointed evaluation with Xinjiang University and State Grid Xinjiang Electric Power Company, won second place for the National Science and Technology Progress Award.

### National Manufacturing Individual Champion Demonstration Enterprise

Goldwind received the title of China's first group of National Manufacturing Individual champion Demonstration Enterprise granted by the Ministry of Industry and Information Technology, and was also the only one new energy wind turbine generator manufacturer included.

### National Quality Culture Construction Demonstration Unit

Goldwind got the title of National Quality Cultural Construction Demonstration Unit at the fifth National Quality Cultural Construction Results and Experience Exchange Conference hosted by China Association for Quality.

### Excellent Director Award

The Company received the Excellent Director Award by Hong Kong College of Directors and we became the first enterprise in China's new energy industry to be awarded such a prize.

### Xinjiang Uygur Autonomous Region Science and Technology Progress Award

The Technology Research and Application of the Wind Power Big Data and Wind Power Operation Service, applied by Goldwind together with Xinjiang Energy (Group), Hami Clean Energy Limited, and China Energy Engineering Group Xinjiang Electric Power Design Institute Co., Ltd, won the second place for the Xinjiang Uygur Autonomous Region Science and Technology Progress Award 2016, granted by Science & Technology Department of Xinjiang Uygur Autonomous Region.

### Industrial Brand Cultivation Demonstration Enterprise

Goldwind won the title of Industrial Brand Cultivation Demonstration Enterprise 2015 awarded by China's Ministry of Industry and Information Technology.

### The Most Influential Brand in the Industry of Power Generation by Renewable Energy

Goldwind won the title of Most Influential Brand in the Industry of Power Generation by Renewable Energy at the third Ave Award selection, held by Dianqi Yu Nengxiao Guanli Jishu (Electrical & Energy Management Technology) magazine and Chinese Renewable Energy Society.

### Best Investor Relations in all industries in Asia

Goldwind ranked the Best Investor Relations in all industries in Asia, held by the US Institutional Investor magazine, and it is the only new energy enterprise in Asia on the list.

### Global Top 200 Green Company

Goldwind was listed in Top 200 Green Company by Clean 200 organization, which listed the first in domestic enterprises.

### Global Top 20 New Energy Enterprises

At the conference of the sixth Global Top 500 New Energy Enterprises Award, Goldwind ranked in the top 20 New Energy Enterprises, and also first place among Chinese wind power enterprises.

### Outstanding Achievements Award for Chinese Energy Enterprises

Goldwind won the Outstanding Achievements Award for Chinese Energy Enterprises at the first International Industrial Capacity Cooperation Forum -- Global Energy Leaders Summit organized by The Economic Observer.

# Sustainable Development Management

As the world's leading supplier of overall solutions for wind power, Goldwind has been committed to solving energy and environmental problems in society, based on its expertise. In the process of decision-making and operation management, the Company takes into consideration the influence on employees, customers, suppliers and the community. We try our best to guarantee the interests of stakeholders providing conditions for their further development, minimizing the adverse influences on stakeholders while making every effort to maximize the interests of all parties and to achieve the common development.

In order to strengthen the capacity and level to fulfill social responsibilities, the Company proactively carries out various activities, builds and improves the system for performing social responsibilities and integrates the awareness of social responsibilities into management and operations.

The chairman takes charge of the sustainable development affairs of the Company. He guides the system of sustainable development and makes assessments regarding relevant performances. The Company has established broad sustainable development indicators and information collection systems according to characters of our sustainable development and requirements of relevant policies and standards. We will gradually complete the system in the near future to further enhance the effectiveness of the sustainable development management; based on our collection system of sustainable development indicators and information, headquarters, business units/centers and subsidiaries have appointed specific personnel responsible for the continuously improving performance of those indicators. Centered on the important themes of sustainable development such as product quality, safe production, environmental protection and rights & interests of employees, the Company has established and will continue to complete the ISO 9000 quality management system, ISO 14000 environment management system and the OHSAS 18000 occupational health and safety administration system. It is important that sustainable development concepts be integrated into the operation and management of the Company.



# Sustainable Development Management



Wu Gang, chairman, was making speech in the kick-off meeting of 2016 Sustainable Development Report

At the end of 2016, the Company organized kick-off meeting of 2016 Sustainable Development Report. It invited a third-party institution to introduce the *Environmental , Social and Governance Reporting Guide* of the Hong Kong Stock Exchanges, in order to promote employees' understanding of related standards and the Company's information disclosure work.

### Stakeholders engagement

Since the stakeholders have a direct relevance with the sustainable development of the Company, they play an important role in the decision making process. The Company continues to communicate and interact with stakeholders during the daily operation and management to further learn the demands and concerns of all parties and actively respond to them.

In addition to communication with stakeholders in daily operations, the Company also increases exchanges with them through meetings, regular visits, and by other means. For example, it organizes shareholders' meetings on a regular basis to learn and understand shareholders' demands and to respond. It also organizes supplier meetings at the beginning of every year, to communicate about the new concepts and trends in product quality, technological innovation and other aspects.

Stakeholders' attention and the Company's response.

| Stakeholders   | Attention  | Response  |
|--|--|---|
| Shareholders and creditors                           | <ul style="list-style-type: none"><li>Sustainable profitability</li><li>Regulation of company governance</li><li>Disclosure of business information</li><li>Enhance the profitability to reward shareholders</li></ul> | <ul style="list-style-type: none"><li>Enhance our business management capacity</li><li>Strengthen management of debt risk</li><li>Optimize internal management system of compliance risk</li><li>Timely disclose information</li><li>Organize shareholders' meeting</li></ul>   |
| Customers  | <ul style="list-style-type: none"><li>Honor and integrity</li><li>High-quality products</li><li>Excellent services</li><li>Respond to customer concerns</li></ul>  | <ul style="list-style-type: none"><li>Strictly implement requirements set forth in contracts</li><li>Strengthen management of product quality</li><li>Offer varied products</li><li>Offer excellent services</li><li>Improve the procedure to handle customer concerns</li></ul>  |
| Employees  | <ul style="list-style-type: none"><li>Legal interests protection</li><li>Salary and welfare guarantee</li><li>Health and safety protection</li><li>Development platform building</li></ul>                             | <ul style="list-style-type: none"><li>Equal and standard recruitment</li><li>Set up staff congress</li><li>Appropriate salary and social insurance payments in a timely manner</li><li>Improve talent development channels</li><li>Offer competitive salaries</li><li>Offer diversified welfare</li><li>Offer healthy and safe work environment</li></ul> |
| Suppliers  | <ul style="list-style-type: none"><li>Sunshine purchase</li><li>Honor and integrity</li><li>Win-win cooperation</li></ul>  | <ul style="list-style-type: none"><li>Open and fair purchase</li><li>Timely payment for goods</li><li>Support the healthy development of suppliers</li></ul>  |
| Community  | <ul style="list-style-type: none"><li>Protection of local environment</li><li>Support of community development</li><li>Charity and welfare</li></ul>   | <ul style="list-style-type: none"><li>Carry out energy conservation and emission reduction</li><li>Protect ecological environment</li><li>Support public affairs of the community</li><li>Carry out charity activities within the community</li></ul>   |
| Government   | <ul style="list-style-type: none"><li>Observation of disciplines and obey laws</li><li>Tax payments</li><li>Drive local economic development</li></ul>   | <ul style="list-style-type: none"><li>Obey laws and regulations</li><li>Pay taxes according to law</li><li>Offer job opportunities</li><li>Drive development of related industries</li></ul>  |
| Financial institutions, R&D institutions, media, etc | <ul style="list-style-type: none"><li>Common development</li><li>Information disclosure</li></ul>  | <ul style="list-style-type: none"><li>Implement strategic cooperation</li><li>Strengthen cooperation between company, research institutions and universities</li><li>Organize visiting activities</li></ul>   |



# Sustainable Development Management

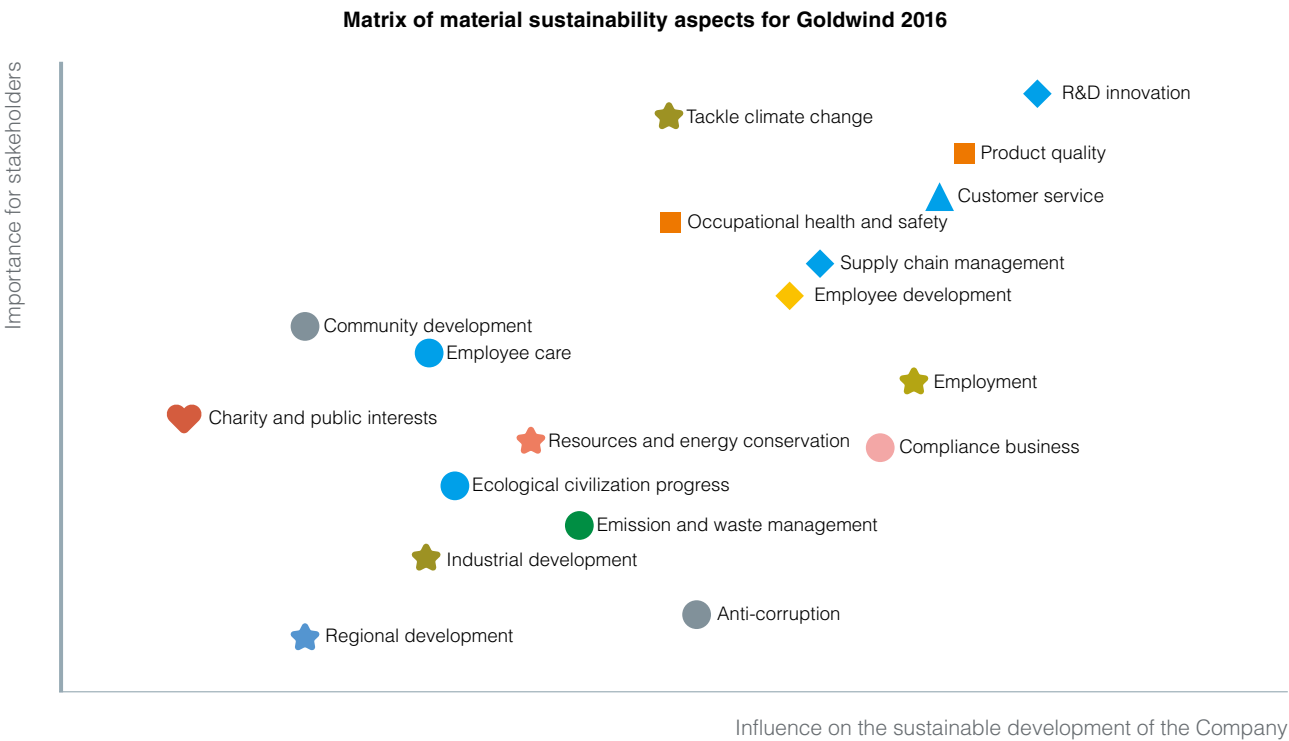
## Determining the material aspects for the report

In 2016, the Company implemented the procedure for deciding the material aspects related to sustainable development, so as to determine the focus of the sustainable development and key information to be disclosed.

Major information sources:

- Background and trends of the new energy industry in home and abroad
- Strategies and business focus of the Company
- Related standards and guidelines for sustainability reporting
- Feedback from stakeholders

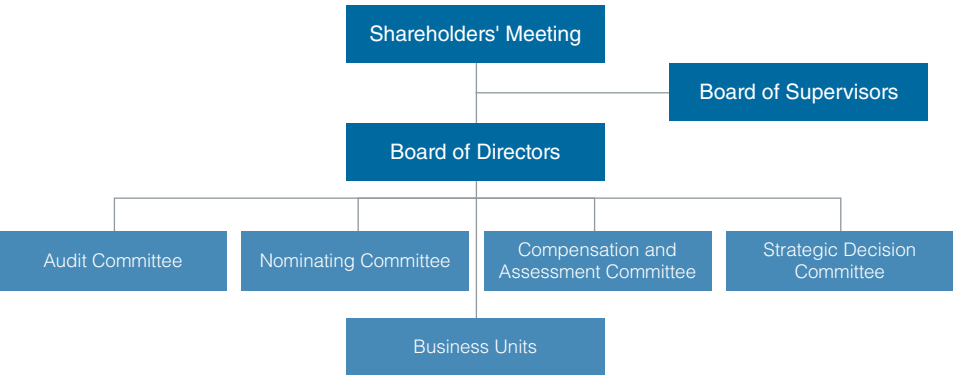
The Company integrates the information and decides the material aspects, in terms of their influence on the sustainable development of the Company as well as of stakeholders. The Matrix of the material aspects for Goldwind 2016 was hence formulated which is the basis of this report. It also lays the foundation for work related to sustainable development in 2017.



# Corporate Governance



The Company strictly observes *Company Law*, *Securities Law*, *Code of Corporate Governance for Listed Companies in China*, the *Corporate Governance Code*, *Regulations of the Company*, and other laws and regulations as well as regulatory documents. It established the organizational method and operational system for modern enterprises, including Shareholders' Meeting, Board of Directors, Board of Supervisors and separation of powers of managers. All these measures contribute to improving the Company's management and governance system, especially the risk management system; and realize the efficient, scientific, regulated operation and collaborative development between different divisions.



The Company's governance system

At the end of 2016, the Board had 9 numbers. In 2016, the Company held eight board meetings, examining 57 proposals including annual report and salaries of directors and supervisors. In addition, it also held three Shareholders' Meetings examining 27 proposals, five Audit Committee meeting, one Compensation and Assessment Committee meeting, and three Nominating Committee meetings.

Please refer to Section Corporate Governance Report of the annual 2016 report (H-shares:2208) or Section Corporate Governance of (A-shares: 002202)of Goldwind, for detailed information about company governance.

## Compliance management

Being honest and responsible as well as compliance management is the key tenets of the Company, and they are also the preconditions and basis for the Company's operation. The Company adheres to credit business and has built the compliance management system. Moreover, according to requirements for developing business, we constantly improve the compliance management system and procedures, compile internal compliance management manuals and conducts different forms of compliance management training. Goldwind makes every effort to integrate compliance into each link of the daily operation to promote steady growth of the Company.

## Risk management

Comprehensive risk management is a prerequisite for the Company's sustainable development. In 2016, the Company revised the risk management system, carried out risk management training, promoted the construction of risk management system, optimized the internal management processes and systems, strengthened the implementation and supervision, and continuously improved the awareness and ability of risk prevention.

The Company establishes internal control system and compiles internal control manuals in line with laws and regulations including the *Basic Norms of Corporate Internal Control*. Comprehensive self-evaluation of internal control exercise is conducted every year, to review major control links in the business area following the principles of cross check. According to the latest laws and regulations, feedback and suggestions on internal and external audit and internal control of the Company, we continue to improve the internal control system.

| Establish the risk management mechanism  | Optimization of procedure and system  | Inspection and supervision of the system implementation  |
|--|---|--|
| <ul style="list-style-type: none"><li>● Revise the <i>Risk Management System</i> to add contents like risk assessment standards and risk responding requirements.</li><li>● Organize employees to learn risk management system and tools, so as to infiltrate the consciousness of risk management to every business link.</li></ul> | <ul style="list-style-type: none"><li>● Integrate risk management into the management of daily process; review and improve the 22 procedures in nine modules of fund management.</li><li>● Revise and improve 82 items of the internal management system, among which 31 items that are newly added and 51 which are revised.</li></ul> | <ul style="list-style-type: none"><li>● Regularly inspect the implementation of systems and strengthen supervision.</li><li>● Examine the procedures and risks according to the ISO quality management system, safety management system and environmental management system.</li><li>● Integrate the internal audit to supervise the internal risk prevention.</li></ul> |

## Anti-corruption

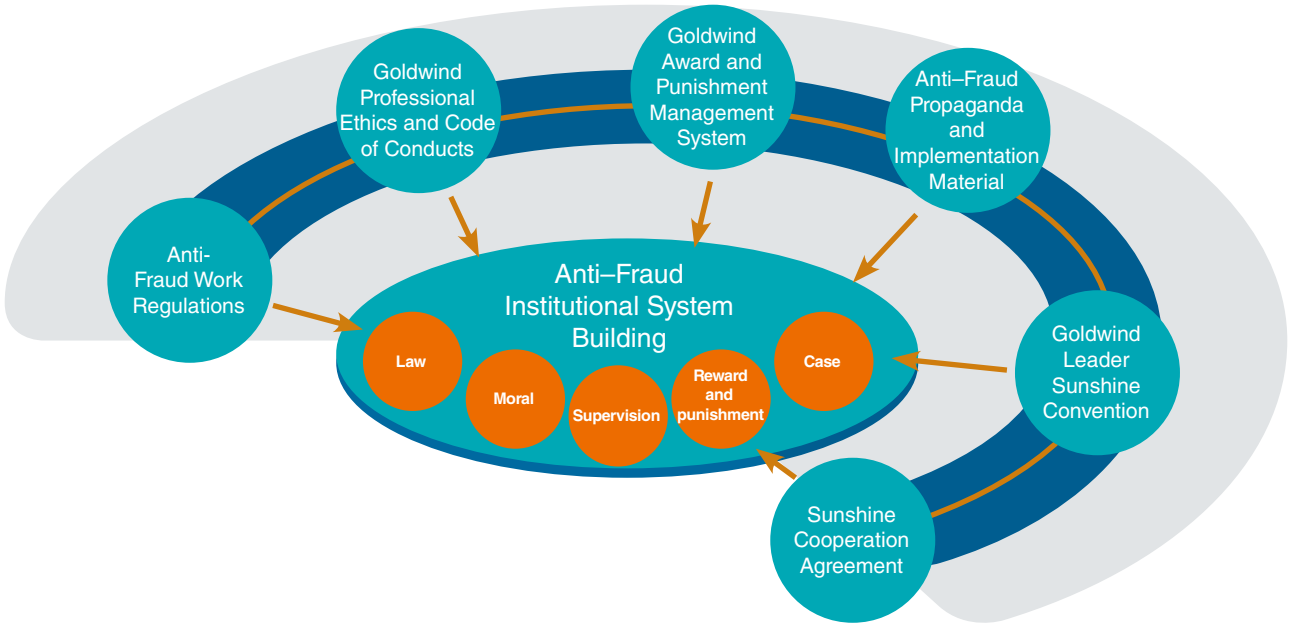
The Company pays significant attention to combating corruption and upholding integrity, proposing the principle to:“ Be an honest person, do compliance deeds, keep promises, and observe self-discipline”. It has strict requirements for managers to observe self-discipline to oppose every form of corruption. We also conduct training sessions for employees to raise their awareness concerning corruption. The Company formatted the *Anti-Fraud Work Regulations* and “the list of behaviors considered as fraud” to guard against the Company's operation risks and employees' potential moral hazards, with the purpose of creating a transparent and healthy working environment.

In May 2016, the Company conducted activities focused on anti-fraud and self-discipline. With the goal of a standardized system to discover potential problems and warning education, all functional departments, sections and centers did a self-inspection based on their actual conditions and revision to *Key Posts Self-Discipline Behavior Reference List*. They especially examined key areas, in order to increase awareness of being honest and obeying the rules of the administrative staff, so as to stop corruption from the source.



# Corporate Governance

In 2016, the Company managers of functional departments, sections and centers signed the *Goldwind Leader Sunshine Convention*. The Company also signed *Sunshine Cooperation Agreement* with customers, suppliers and other partners to regulate employees' behavior. For the total year, there were no major corruption events at Goldwind.



## Information disclosure

As a company listed on both the Shenzhen and Hong Kong exchanges, Goldwind discloses identical information in a timely, comprehensive, equal and strict manner in both exchanges. While observing the listing rules in both places, it improves the information disclosure system to enhance the quality of the information disclosure work. It ensures that investors at both exchanges can equally obtain information about the Company and that the Company's operation and business information can be adequately updated.



Miss. Ma Jinru, Secretary to Chairman, communicated hot issues with investors

In addition to organizing conferences and road shows to regularly demonstrate its achievements, the Company also receives investigations by investors on a daily basis. Moreover, it uses e-mail, a hotline, a column on the official website, WeChat account, WeChat group and other communicating channels, as well as attending analyst meetings, to build an all-dimensional platform for timely and effective communication. In terms of conferences, it initiated the mode of integrating on-site conference and teleconference to broadcast to the world in two languages simultaneously. Investors at both locations can take part in the conference by telephone to communicate with managers on site. The practice of releasing the Company's achievements in home and abroad as well as on the spot and online further enhances the quality of the Company's information disclosure work.

In 2016, the Company released four regular reports, A-share 74 temporary announcements, and H-share 135 announcements, among which 78 announcements were in both Chinese and English. It organized two road shows, 115 investigation meetings, and received visits of 1,394 people-time. The Company gives feedback to inquiries from investors through an investor relations platform, email and hotline, with a response rate of 100%.

Investors received in 2016  
**1,300+** person-time







## SUSTAINABLE DEVELOPMENT REPORT

### R&D and Innovation

Develop through innovation, technology  
lightens the future

The spirit of innovation runs through the whole development of Goldwind: from determining the history of China's import of wind turbine generators, to taking the lead in the rapid development of China's wind power industry to becoming the world's top manufacturer of wind turbine generators. Innovation is the eternal theme of the Company.





# R&D and Innovation

“Technological innovation is key to China’s new energy industrial development. It will drive the ongoing transformation and upgrading of the wind power industry. In the past 18 years, Goldwind has been focused on R&D and innovation, creating its core competitiveness. It advocates the spirit of the craftsman, to win customers and market through increasing value, as well as to optimize shareholders’ interests. In the future, we will continue to adhere to innovation to contribute to global clean energy industry.”

Wu Gang, Chairman

## R&D system

The Company set up seven R&D centers around the globe. With Beijing as headquarters, its R&D management system covers the whole country and then the world. The flat R&D organizational system reduces the communication layers and improves communication efficiency. The Company provides tailored designs and innovation technological requirements for different R&D focus and market, and establishes teams for R&D projects for rapid responses to market demands. In 2016, Goldwind had 2,080 R&D personnel throughout the world, accounting for 28.81% of the Company’s total employees.

The Company constantly increases input in R&D ability. In 2016, its input in R&D is 1.39 billion, which occupies 5.25% of the total revenue.

The R&D investment accounted for the proportion of income in 2014-2016(%)

| Year | Proportion |
|------|------------|
| 2014 | 6.46%      |
| 2015 | 5.19%      |
| 2016 | 5.25%      |



The Company’s global R&D and innovation system

## Innovative culture

The Company encourages employees to do technological innovation in an effort to encourage an innovative culture characterized by “respecting labor, knowledge, talent and creativity.” In order to further stimulate employees’ enthusiasm for invention and innovation, in 2016, the Company revised the *Technological Innovation Incentive System*, specifying regulations related to who could receive awards and what would be awarded. It also builds an individual platform for applying for innovation projects, where employees can organize their own project teams. Experts evaluate the applications, provide funds and guidance during the whole process of the project.

Every year, the Company holds Technology Innovation Award Conferences presenting 11 awards including; Patent Application & Licensing Awards, Micro-innovation Awards, Technical report & technical paper awards. In 2016, it hosted the first technological forum themed, “Connect through data and compete in cloud,” discussing the technological development and innovation in the wind power industry in an Internet era.




In 2016, the Company’s studio of smart wind turbine electronic control system won the title of Innovative Studio of the Beijing Economic-Technological Development Area. The studio is China’s biggest R&D team for wind turbine electronic control systems and it integrates R&D with industrialization of the system. It has become a platform of the Company for talent cultivation, invention & innovation, as well as technological exchanges and transformation.



## R&D achievements

The Company integrates development and upgrading of products that constantly increases and diversifies production lines. It also continues to advance the technologies and their applications in areas around WTGs, as well as upgrades software and hardware devices of products. With the thinking of “Sell one generation, develop one generation and reserve one generation” in product development, in 2016, the Company completed the work of developing new GW3S platforms. It also made progress in the 2.0MW, 2.5MW series and 6.0MW series, as well as the Valueplus products and provided solutions in the development and construction of special models.

### WTG achievements in 2016

| Special WTG   | Picture   | Progress   |
|---|---|--|
| Ultra-high altitude series                          |   | The Company completed the set-up and design of the ultra-high altitude wind turbine series; the development of wind turbine blade for high altitude wind turbine series; the ultra-high altitude environment test of the key electronic control system as well as winning the third-party certification.   |
| High temperature series<br>(international projects) |  | The Company carried out systematic technological research on the condition of wind turbine to work at high temperature. It finished the development of the high-temperature converters and built the technology platform for high temperature series, to offer technological modular for the development of other direct-drive high- temperature series. |
| Offshore wind power business                        |  | The Company set up the comprehensive solution for an offshore wind turbine series, and successfully finished the first offshore project in Xiangshui.  |

### Case: Successful development of smart GW3S WTG

Relying on the experience of R&D, operation and maintenance of nearly 20 thousand permanent magnet direct-drive series, the Company launched the platform for large MW products — smart GW3S WTG. Through smart design, the output capacity of GW3S ranges from 3.0MW to 3.6MW, impeller diameter can be increased to 140 meters, and the tower can be 100-140 meters high. The series' adaptability to low and ultra-low wind speed broke the industrial record. With the assistance of the application of digital technology, the series realizes the intelligent perception, transportation, control, operation and maintenance. It is capable of optimal output correction in terms of noise reduction, special wind conditions, topography, high-temperature climate, even under the component failure mode. Smart GW3S WTG makes a breakthrough in using the double-loop control structure in which several control loops are used in the machine. It also adopts the modular design, which can reduce the difficulty in transporting, hoisting, operation and maintenance, as well as transportation in the South and other areas.

### Case: China's first reinforced concrete wind tower

Tower is an important part of wind turbines, which can increase generating capacity and efficiency of a single machine. In 2016, the Company launched China's first reinforced concrete wind tower with a height of 90 to 140 meters. It can effectively enhance the efficiency of wind turbine and then wind farms. It offers a better solution for wind farm construction in areas of low wind speed, wind shear, turbulence and with transportation difficulty. The technology breaks the limit of steel tower which can hardly extends beyond 100 meters, filling the technological blank. It already won the certificate from China General Certification Center and over 20 patent licenses.

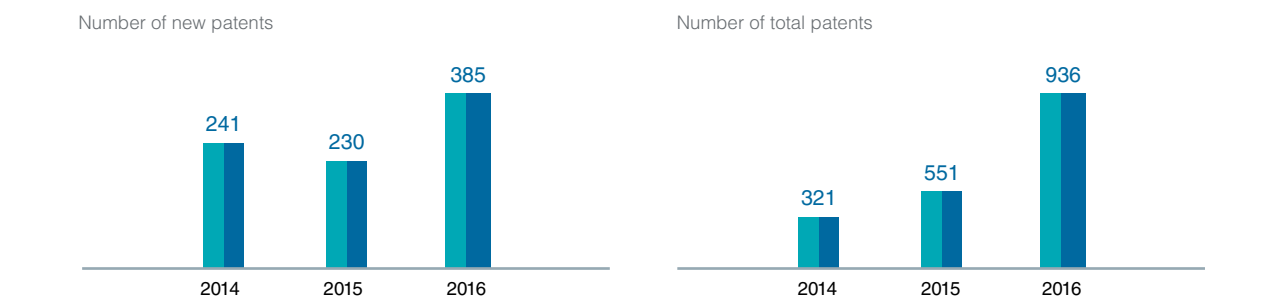




# R&D and Innovation

In 2016, the Company newly received patent licenses were 385 and total patents were 936. In order to adapt to the trend of the energy Internet, the Company actively innovates in computer software, algorithm and other resources and now owns 293 software copyrights.

The Company’s new and total patents in 2014-2016



Goldwind built the intellectual property management system, specifying regulations for work related to patent management and establishing an international model for creating, managing and utilizing intellectual properties. In 2015, the Company received the award of China IP Champions presented by the Intellectual Asset Management magazine. In 2016, Goldwind's wholly-owned subsidiary Beijing Etechwin Electric Co., Ltd won the title of Beijing Patent Demonstration Enterprises granted by Beijing Intellectual Property Office.

Goldwind actively participates in industrial standard formulation and research projects, to promote the healthy and prosperous development of the wind power industry. In 2016, it hosted or participated in the formulation of 127.

### Case: Leading in formulating international standards for Micro-Grid

In September 2016, the Company held a meeting in Beijing to launch the compilation of standards for IEC 62898-3-1 Micro-Grid Technological Requirements, Micro-Grid Protection Requirements. This is the third China-led international standard on Micro-Grid and also the first international standard on Micro-Grid led by the Company. The standard was proposed by the Goldwind Sci & Tech Co., Ltd. to the Standardization Administration of The People’s Republic of China and China Electricity Council in June 2016. A proposal was presented to the International Electricity Council (IEC) to apply for standard accreditation in the name of China after the former proposal was adopted. On August 12, the proposed standard passed the examination of IEC with 81.8% votes.

Goldwind is the country's first wind power enterprise to participate in formulating the operational rule for The IEC System for Certification to Standards Relating to Equipment for Use in Renewable Energy Applications (IECRE System) of the International Electrotechnical Commission. It, as a representative of Chinese enterprises, took part in all previous meetings for formulating rules for the Micro-Grid international standard system.

The Company’s participation of industrial standards formulation and research projects in 2016

| Level of standards      | Number of standards |
|-------------------------|---------------------|
| National standards      | 68                  |
| Industrial standards    | 48                  |
| Local standards         | 6                   |
| Associational standards | 5                   |
| Total                   | 127                 |

## Technological exchange

The Company actively carries out exchanges and cooperation with research institutions, universities and peer companies. Through forums, sharing technological resources, joint research projects and other ways, we manage to allocate resources rationally to promote the development of the new energy industry in a joint effort. In 2016, the Company participated in over 300 collaborative projects with more than 100 partners.



The Company’s collaborative innovation with research institutions, industrial partners, universities and innovative enterprises in 2016



The Company attended China Wind Power 2016 Conference





## SUSTAINABLE DEVELOPMENT REPORT

### Product and Service

Quality achievements foundation, contribute  
to customer value

Goldwind produces advanced products and quality service to regions within China and for countries throughout the world. It is also seeking its own breakthrough. Relying on technological innovation, it continues to offer quality and highly reliable products to customers. Through improving generating capacity and lowering cost of operation and maintenance, Goldwind creates optimal value for customers.



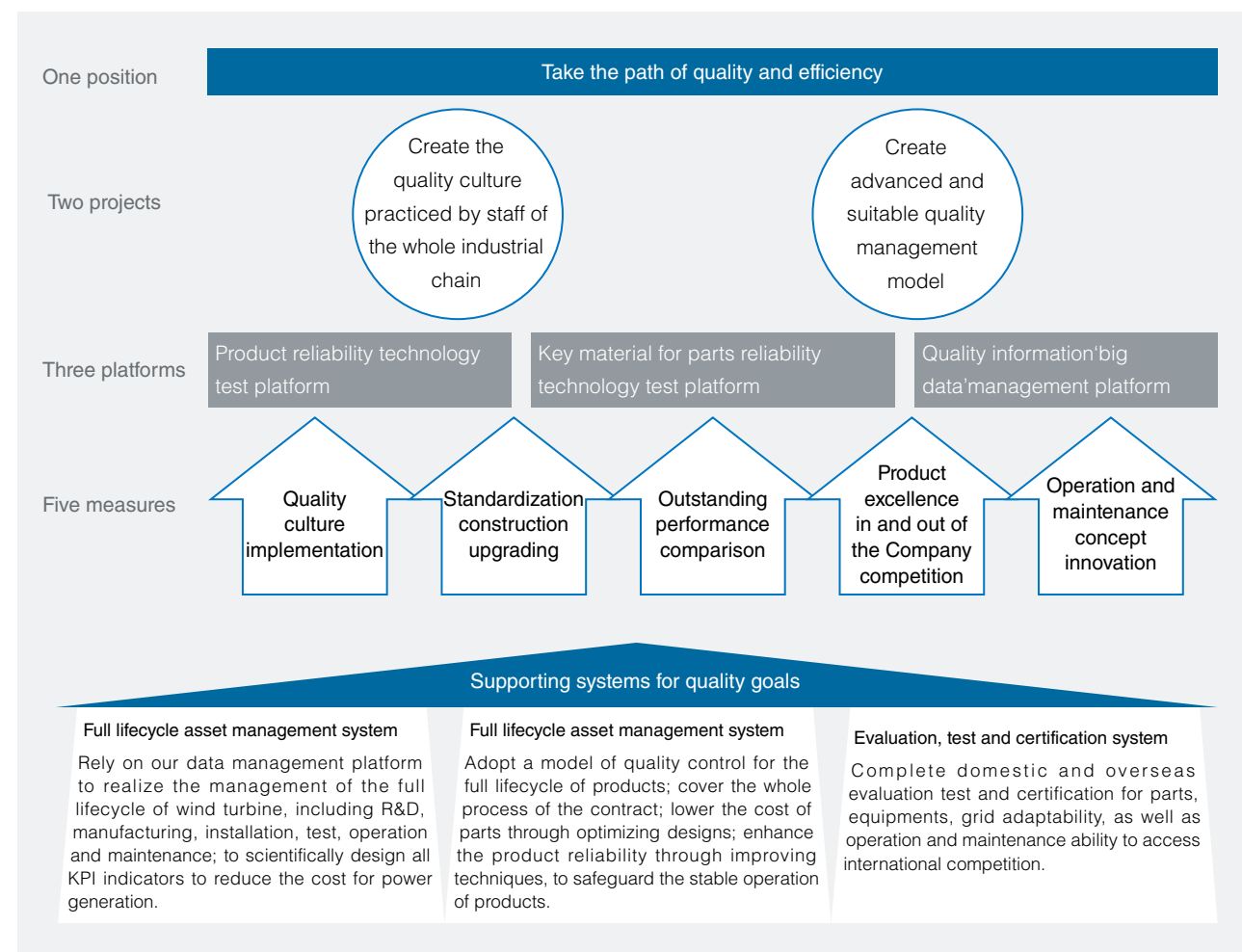
# Product and Service

## Product quality

High-quality products are the foundation for company contributions to social development. The wind power likes the Marathon: who attaches importance to quality will have a bright future, which is what the Company is fully aware of in this industry. Therefore, the Company is always in pursuit for excellence as its principle of quality control affairs. “Be the best” is always the keynote of Goldwind. In all stages of the Company’s development, high-standard quality is the prerequisite. Through strengthening quality control, we endeavor to provide more than customer needs. We create optimal value for customers, while meeting the requirements of external quality detection institutions.

## Quality management system

Goldwind established the all-dimensional quality management system, beginning with the Chairman and continuing to the on-site quality control staff. We specify the management scope for all levels; regularly organizing the quality management committee, and signing the document of quality management responsibility. We do this to realize the goals for quality management throughout various levels. The Company built three supporting systems based on the goals for quality management. In 2016, there were no cases of product recall due to safety and health problems.



The Company's quality strategy

## Lean management

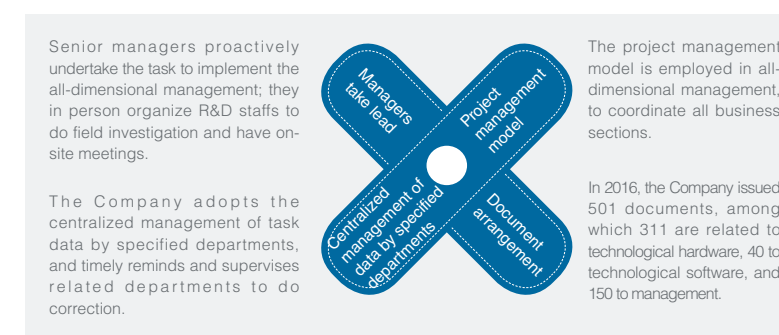
The Company executes lean management, calling for all employees to dig and implement lean management programs. Quality control runs through the whole production process and problems are detected and corrected quickly. In 2016, centering on the major business of wind turbine manufacturing, the Company further improved related systems of lean management through standardization management. Meanwhile, targeted control measures were taken at every production link to enhance the level of lean management.



Goldwind's subsidiary Beijing Etechwin Electric Co., Ltd implemented the converter assembly line project, which shortened the production period, reduced the amount of employees necessary and improved working efficiency

## All-dimensional quality management

In 2016, Goldwind continued quality management throughout the whole process, on all employees and around the whole company. It made 11 tasks for quality management and set up quantitative targets for assessment. Senior managers including the Chairman and President signed documents of work commitments, vowing to fulfill quality indicators. The Company also adopted the project management model as well as Statistical Process Control (SPC) and other tools for improving management, to ensure the closed-loop management of issues related to quality.



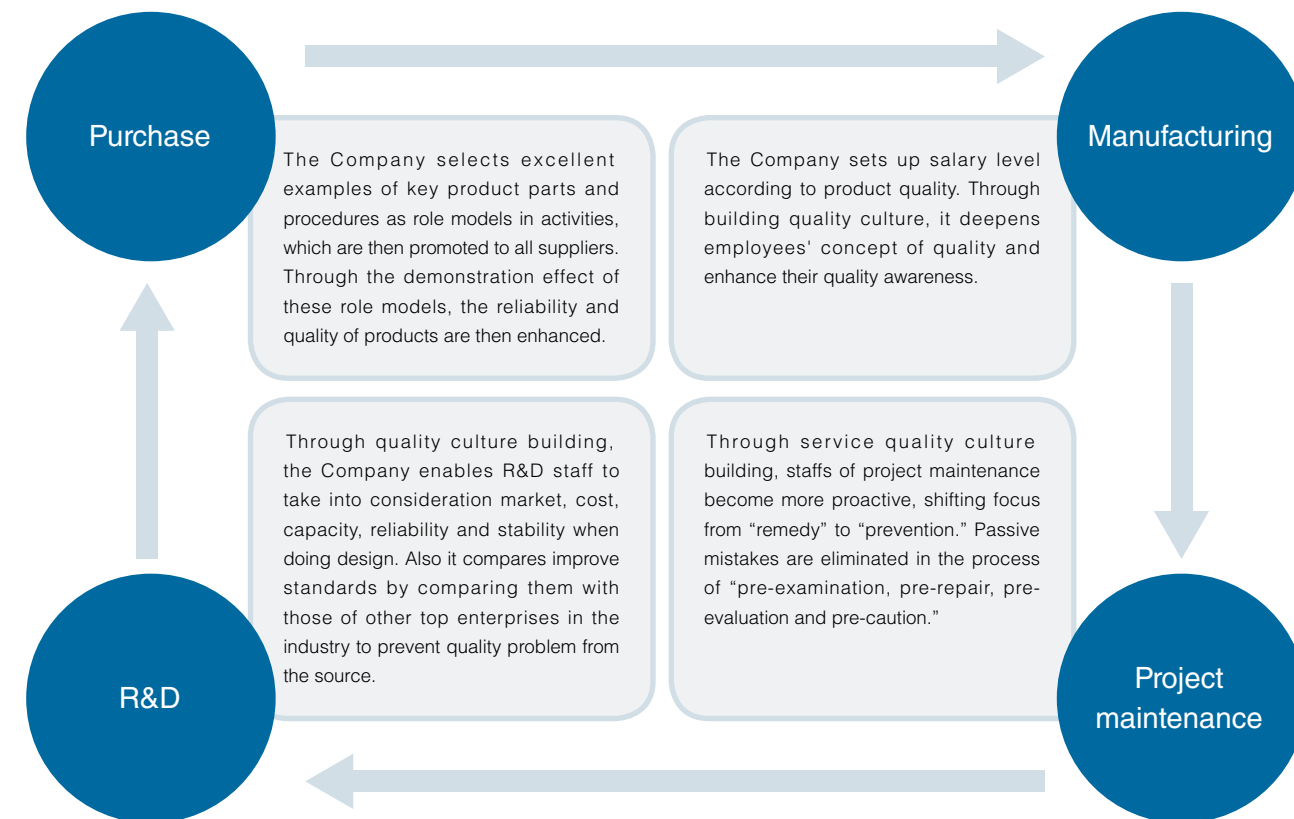
All-dimensional management



Wang Haibo, president of the Company, received the all-dimensional task

### Quality culture building

In order to upgrade from system management to culture management for quality control, the Company built a quality culture system with the characteristics of Goldwind. It proposed the concept of “Base on integrity, focus on prevention, self management, no product recall, strive for excellence.” It also organizes various activities to integrate quality culture into purchase, R&D, manufacturing, project maintenance, and other links.



Quality culture building in all production links

### Quality management of supply chain

Goldwind proposed the concept of “fostering general excellence,” advocating the transformation from internal collaboration inside the Company to the collaboration throughout the whole industrial chain. By creating an enrollment for the transformation and centralizing the wisdom of all component suppliers, it endeavors to gain more value from collaboration to realize the optimization of the quality, efficiency and cost of the whole industrial chain. It actively conducts cooperation with suppliers on the advanced technologies of key components and supports the application of reliable technologies. Together with suppliers, it also selects quality role models and decides the plan for producing excellent products, to improve the technologies and quality of key components and finally achieve the goal of “no defect before operation and no malfunction in operation.”

Goldwind held a “supplier management capacity training camp” to train managers and executive staffs members of suppliers to enhance their skills and capacity in quality management, so as to comprehensively elevate the suppliers' understanding and management of quality. In November 2016, the Company convened the themed meeting on quality of suppliers, to share the results of quality management throughout the whole industrial chain and elect quality role models, and meanwhile to award products and suppliers winning the role model title.

### Case: The Taohuashan Project in Hubei Province wins China Installation Quality Engineering Award



Goldwind built the Taohuashan wind farm project in Shishou City in Hubei Province with 24 sets of 2.0MW wind turbine producing a total capacity of 49.5MW. The project developed and utilized 14 effective and safe technologies including concrete one-time chamfering steel molded plates for wind turbine and an integrated platform for construction file. In this way, the quality control of the whole procedure of the project was fulfilled. In addition, the project integrated two methods of laying the circuit, that is built on stilts and underground methods. Therefore, while maintaining the installed capacity, the methods reduced the usage of 4,000 square-meter ground as well as the damage on circuit by icing, lightning strokes and other natural disasters. The project in 2016 won the China Installation Quality Engineering Award, the highest award for engineering quality in China's installation industry.

### Quality role model selected in 2016

| Type of role model | Product  | Winning company  |
|--------------------|--|--|
| Product quality    | 2.0MW field rotor  | Shandong Longma Heavy Industry Technology Co., Ltd         |
|                    | 2.0MW/115 wind turbine blade                                   | Shanghai Aeolon Wind Energy Technology Development Co.,Ltd |
| Quality management | Industrial electrical product intelligent trace and SAS system | China PHOENIX CONTACT                                      |
| Production process | Metal plate automated production processes                     | Onoff Electric Co., Inc.                                   |
|                    | 2.0MW casting workblank appearance quality                     | Shandong Longma Heavy Industry Technology Co., Ltd         |
|                    | 2.0MW castings anti-corrosive appearance quality               | Shandong Longma Heavy Industry Technology Co., Ltd         |
|                    | 2.0MW casting wall thickness precise control                   | Jiangsu SINOJIT Wind Energy Technology Co., Ltd            |

### Customer service

Because our customer is the last link to realize the value of products, Goldwind emphasizes building and enhancing the skill and management of customer service. In addition to fostering traditional service abilities, it actively adopts remote control to supervise on-site maintenance work. It has built a quick response system composing of 400 toll free access numbers, remote supervision system, and spare networks.



# Product and Service

## Quick response service system

The Company endeavors to build a service system which will provide a quick response to customers. The system can respond immediately after a breakdown happens, ensuring the lowest loss. Through the open and smooth channels of communication with customers, the Company guarantees the effective transmission of customers' needs. As the direct contact person with customers, project managers are responsible for transmitting feedback and demands to the Company's service centers, which then transmit the information to R&D, purchasing, production, and other departments according to the information type. The Company also set up 400 customer service phone hotlines and formulated regulations to standardize the procedure of handling customer complaints. It made detailed quantitative requirements on limits of authority and time for different levels of problem severity. It also includes the number of customer complaints and response time into assessment to form a closed-loop management model. The Company built the confidential system for customer materials and privacy to protect their legal rights.

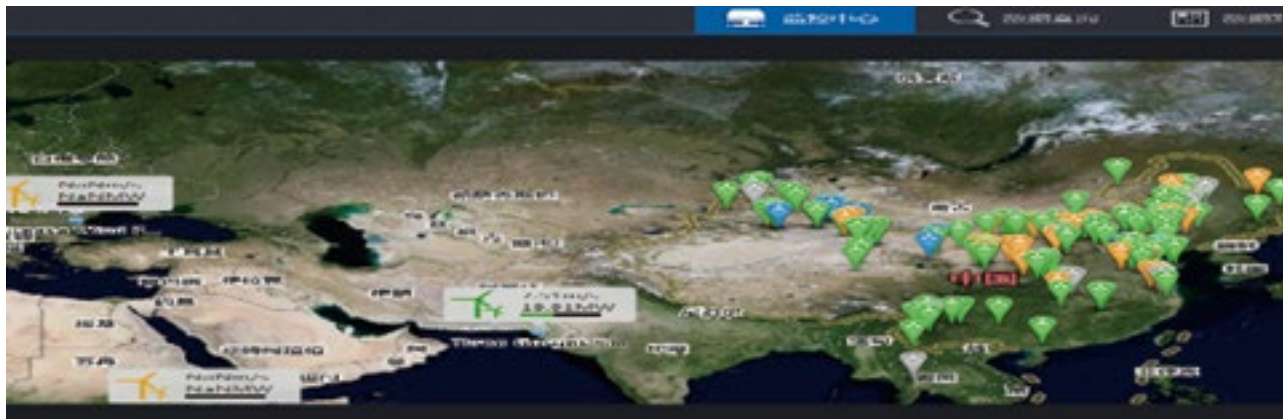
## Remote operation and maintenance system

Through big data, Cloud computing, Internet and other information technology, Goldwind began the remote operation and maintenance for wind farms in 2014. Based on the large quantity of wind turbine operation data collected by global supervision systems, the Company built the Goldwind big data center, remote expert system, asset management system and other key systems, to facilitate the Internet and data transformation for the wind power business and built the digitalized operation and maintenance system. As of the end of 2016, with the assistance of Windunified, a wind resource database and simulation program, we realized the artificial intelligence transformation of the analysis links of anemometer tower data.

### Case: Global monitoring center

Supported by the life-cycle asset management platform and under customer permission, Goldwind utilizes the global monitoring system to supervise over 17,000 power turbines by giving early warnings. Compared with traditional customer service modes, the center is able to radically enhance the efficiency of handling customer issues and reduce observers at wind farms.

Within the global monitoring center, engineers supervise the condition of power turbines all day long and give remote operation to abnormal turbines. Back-end technical experts analyze data and quickly transmit the results to on-site engineers through the SM system. Meanwhile, back-end technical support engineers can anticipate and assess the sub-health status of turbines. They can also offer professional indicators and analysis reports as reference for improving, controlling, and managing turbines. They all escort for the stable operation of wind turbines.



### Case: FreeMeso, a wind power and weather service platform

Site selection for wind turbines has always been the key link for construction at wind farms, because the location can directly influence generating capacity. In order to help customers to decide the best location for wind turbines, the Company in 2015 launched the country's first free, reliable public wind power and weather service platform FreeMeso. It can accurately assess the wind resources and in turn help customers to quickly decide the location for constructing wind farms. In 2016, the Company introduced the mobile FreeMeso, which is portable which strengthens the efficiency and accuracy of wind farm design.

In 2016, Goldwind launched the GW SES-A smart operation and maintenance solution. It produces tailored solutions according to different operations and maintenance goals and requirements of wind farms. The solutions were well received by the market. It is based on the experience and knowledge by the operation and maintenance of 20,000 wind turbines and it has an expert big data platform capable of diagnosing problems, stable material supply chain, logistics and storage network around the world, as well as the operation and maintenance solution which can guarantee power generating. 80% of the Company's power turbine customers chose the smart solution to enjoy an efficient and standardized operation and maintenance service.

In 2016, the Company's Wind Turbine Equipment Remote Operation and Maintenance Pilot Project was chosen as the national intelligent manufacturing pilot demonstration projects announced by China's Ministry of Industry and Information Technology, which was the first case in wind power filed within China.

## The service system for spare parts

Goldwind compiled the service assurance program, and built the spare part service system nationwide as well as the green channel for material response. In 2016, the Company's spare parts maintenance center in the Ningxia Hui Autonomous Region, the first-class accessories warehouse in Wuzhong, and the second-class spare parts warehouse in Wuhan came into service. Through improving the three-level spare parts gallery management model, the Company now owns 4 first-class warehouses, 11 second-class warehouses, 88 third-class warehouses and 17 international warehouses, as well as 4 spare parts maintenance centers and 12 bases. The service network now covers different points, form lines and then regions, providing spare part maintenance service for global wind power customers.

According to customer needs, the Company delivers spare parts from nearby warehouses, through remote monitoring and logistics information platforms. Supported by its accessories warehouse system around the globe, the Company sets up the spare part maintenance team, to provide integral solutions including consultancy, diagnosis, maintenance, optimization, design, and prevention to customers. The service covers over 20 types of turbines and nearly 400 spare parts, over 90% parts are stored in warehouses.



In 2016, Goldwind launched the drone blade diagnosis system to greatly enhance the accuracy and safety of operations and maintenance at wind farms. The work used to be done using telescope or by climbing to the tower using a suspended platform.



The Company's first-class accessories warehouse in Beijing





## SUSTAINABLE DEVELOPMENT REPORT

# Environment

Preserve the blue sky and care for  
the ecology

As a leading enterprise in the wind power industry, Goldwind actively responds to the national policies to cope with climate change and energy strategies. It strictly controls the energy consumption and emissions and constantly provides clean energy for society through its own products and services. In addition to reducing the influence on the environment by its own operation, it also plays the role of a new energy enterprise by improving the energy structure and ecological progress.



## Cope with climate change

As a leading enterprise in the wind power industry, Goldwind actively provides product and service related to clean energy infrastructure, facilitating the function of new energy to slow down and cope with climate change.

### Emission reduction of Goldwind in 2016 through providing wind turbine products

| Category                                       | 2016     |
|--|----------|
| Global total installed capacity (GW)           | 38       |
| Standard coal conservation (ten thousand tons) | 2,696    |
| Carbon dioxide reduction (ten thousand tons)   | 7,779    |
| Sulfur dioxide reduction (ten thousand tons)   | 4.48     |
| NOx reduction (ten thousand tons)              | 6.08     |
| Fume reduction (ten thousand tons)             | 1.44     |
| Rebuild forest (ten thousand m³)               | 4,250.89 |

On the basis of providing wind turbine products and services, Goldwind independently developed the smart micro-grid products, including wind power generation, photovoltaic power generation and energy storage system, offering the integral solution of new clean energy to society. The Company has now put into operation a number of smart energy demonstration projects, producing widespread influence and demonstration effects. In July 2016, together with Yueyang Goaland Energy Conservation Tech Co., Ltd., the Company launched the first MW-scale smart micro-grid project at Hunan Province. It integrates a photovoltaic power generating system, energy storage system, cold (thermal) energy storage system, charging pile, smart micro-grid control system and other systems. It helped Yueyang Goaland achieve the annual reduction of 469 tons of standard coal usage, 1,230 tons of carbon dioxide emissions, 39 tons of sulfur dioxide emissions, and 355 tons of fume emissions.

The Company adopts diversified industrial models to take advantage of new energy when coping with climate change. It has registered 33 projects under the Clean Development Mechanism (CDM), with a total carbon dioxide emissions of 17.90 million tons and a reduction of 7.10 million tons of standard coal usage.



## Energy and resource utilization

According to national laws and regulations as well as standards for environmental protection, Goldwind established a sophisticated environmental management system, based on its own production and operation condition. The Company supervises and manages the use, recycle, and regeneration of materials and energy, emissions of three wastes (waste gas; waste water; industrial residue), moving sources of pollution and considering other elements influencing the environment. The Company formulated the *Goldwind Technological Resource and Energy Management System*, to manage and supervise the utilization of resources and energy. The subsidiaries' logistics departments regularly do calculations and analysis of water, power and vehicles' fuel utilization data, to detect and solve problems.

During the production, the Company tries to adopt technological sophisticated technologies and equipment which can reduce energy and resource consumption. It also optimizes the process route to reduce the equipments' no-load running time as much as possible. Meanwhile, in daily operation, the Company chooses energy-saving lighting and encourages employees to use double-sided paper to print. In addition, if it is possible, phone and video conferences are used to replace business trip. The logistics department regularly manages all the official vehicles to regulate their usage, reduce official vehicle trip and monitor the exhaust gas emission in Beijing.

The Company's major energy consumption includes electricity in work offices and production building, petrol used for official cars, diesel used for engineering vehicles, and liquefied petroleum used for catering.

The Company tries to use renewable energy as much as possible in the operation and production. Through smart micro-grid technology, the Beijing office (second-phase project) takes full use of the wind and light resources to generate power for its own use. The Company's own wind farms also generate power by themselves in an effort to realize a green operation. The Company has proposed the green supply chain concept and systematic solutions to assist suppliers to complete their green transformation and to drive the sustainable development of wind power products in the full life circle.

## Case: Beijing office's smart micro-grid demonstration project for multi-energy complement renewable energy

Goldwind's Beijing office (second-phase project) adopts the smart micro-grid project to use wind turbine and photovoltaic generating equipment to fulfill the power needs of the office. By using one 2.5MW wind turbine, 500kW photovoltaic, two 65kW micro-gas turbines to generate electricity and natural gas for work use, extra electricity can be transmitted back to the grid to realize the combination of heat and power supply; that is, the heat produced through power generating is used by the dining hall. The power generated annually by renewable energy is about 1,600 thousand kWh, basically meeting 32% demands of the office. In December 2016, the project won the title Science and Technology Demonstrative Project for Blue Sky Action in Capital announced by Beijing Municipal Science & Technology Commission.



The Company's energy and resource consumption amount in 2016

| Resource type                         | Amount        |
|---------------------------------------|---------------|
| Electricity (kWh)                     | 34,306,179.63 |
| Petrol (liter)                        | 1,082,597.41  |
| Diesel (liter)                        | 105,373.50    |
| Liquefied petroleum gas (cubic meter) | 82.21         |
| Fresh water (ton)                     | 358,302.86    |
| Carton box (ton)                      | 3.68          |
| Wooden box (ton)                      | 5.66          |

\* The above does not include data from overseas offices

The Company's greenhouse gas emission in 2016 (Unit: ton)

| Scope of carbon emission | Resource type           | Carbon dioxide emissions | Total     |
|--------------------------|-------------------------|--------------------------|-----------|
| Scope 1                  | Petrol                  | 2,489.97                 | 2,772.61  |
|                          | Diesel                  | 282.03                   |           |
|                          | Liquefied petroleum gas | 0.60                     |           |
| Scope 2                  | Electricity             | 34,203.26                | 34,203.26 |
| Total                    |                         |                          | 36,975.87 |

\* The above does not include data from overseas offices

## Emissions and waste management

As an important wind turbine manufacturer in the world, Goldwind's production mode is to purchase components and then do assembly. Therefore, compared with ordinary manufacturing enterprises, its amount of wastes produced is relatively small. The hazardous wastes are mainly HW06 organic solvents (for instance waste paint), HW13 organic resins (for instance curing agent, resin sealant), industrial sludge produced by industrial wastewater processing, and a small amount of chemical agents used in the sewage treatment plant run by Goldwind's wholly-owned subsidiary, Goldwind Environment Co., Ltd. General wastes are construction wastes produced by constructing wind farms, household and kitchen garbage, office refuse and production. There is domestic sludge produced in the process of domestic sewage treatment by Goldwind Environment and also major emissions of wastewater discharge by the sewage treatment plant and by operations of the Company. However, there are no exhaust emissions.

For different types of emissions, the Company formulated a Waste Water, Noise, and Waste Management Program, to strengthen the management of emissions and waste to avoid secondary pollution to the environment due to improper treatment. All the waste management staff observe the principle of "Waste Sorting, centralized storage, unified treatment, and comprehensive evaluation." For normal wastes, the Company sets up garbage cans and pools for centralized dumping and piling up. And then the wastes will be handled by the third-party for comprehensive recycling and treatment. For domestic sludge, the Company tries to reduce them while doing harmless and steady treatment; after treatment, they will be buried or used for nourishing the land and in construction work. Or, they are used for power generation by an incineration process after signing the BOT franchise rights agreement with the government. In terms of hazardous wastes, every workshop sets up temporary storage rooms for these wastes; they will then be handled to a qualified third-party company for proper treatment.



Emissions and wastes of the Company in 2016 (Unit: ton)

| Type                               | Amount                 |          |
|------------------------------------|------------------------|----------|
| HW06 organic solvent waste         | 6.66                   |          |
| HW13 organic resin waste           | 13.78                  |          |
| Construction waste <sup>2</sup>    | 482                    |          |
| Wastewater pollutants <sup>3</sup> | Chemical oxygen demand | 2,176.21 |
|                                    | Ammonia nitrogen       | 922.39   |

1. The above does not include data from overseas offices

2. Construction waste is produced in the construction process of wind farms

3. Wastewater pollutant data mainly includes the wastewater produced by Goldwind Environment's sewage treatment plant and the other business does not produce waste water. The Company's domestic waste water pollutant emissions are negligible as too small





The Company advocates recycling and proper treatment of carton boxes, wooden boxes, plastics and other package materials. In 2016, the Company disposed of 12.23 tons of carton boxes, 197.20 tons of wooden boxes, and 10.58 tons of plastic wrap. Considering the possibility that packaging can become wastes in the downstream business link, the Company endeavors to improve shielding material of wind turbines to increase the water-tolerance and wear resistance. The upgraded shield can both protect the product and be degradable. In 2016, the Company used nearly 4 tons of fabric shield and nearly 57 tons of plastic shield.

## Ecological progress

Goldwind takes into consideration the concept of harmonious coexistence with nature into all phases of operation. The Company formulated the Environmental Protection and Soil & Water Conservation Management System and Environmental Protection and Soil & Water Conservation Management Control Process to regulate the environmental management and fit the demand of environment protection and soli & water protection related laws. The Company compiled the Record of Contingency Plan for Emergent Environmental Incidents, to spot the type of emergent environmental incidents that may arise in the Company's production and operation process, set up emergent environment work leading groups, and according to different types, early warnings as well as response level and process were specified.

The Company tries to reduce the impact of wind farm construction to local animals and plants as well as the ecological environment, and maintains integration with the local natural environment as well as humanities and society. In complicated mountain areas, many platforms along the ridge cannot support the simultaneous operation of several large professional hoists because expanding the platform will damage the vegetation. Subsequently the Company came out with an elephant-leg-like overall to solve the problem. During the wind farm operation, Goldwind considered the impact from the noise brought about by wind turbines on the community's environment. Therefore, machineries and electric control equipments conforming to criteria for reducing noise were used. Therefore, technology reducing noise was also adopted to reduce noise emission that influenced residents and the surrounding environment.

|  |   |
|--|---|
| <b>Preliminary design phase</b>                  | <ul style="list-style-type: none"> <li>Choose the best plans for the route to access the wind farms as well as routes inside the farm; try to avoid the dense vegetation sections</li> <li>Try to reduce earth rock excavation and vegetation damage when constructing the route to wind farms</li> </ul>   |
| <b>Construction phase</b>                        | <ul style="list-style-type: none"> <li>Strictly implement local and the Company's own environmental protection regulations on water, gas, noise, and residue; protect the environment while conserving soil and water</li> <li>Establish a dust cleaning system to prevent dust blow during construction</li> <li>Utilize integrated treatment equipment to treat the wastewater</li> <li>Utilize seed sowing, spray-seeding and suspended net technologies to facilitate the re-vegetation of the construction site</li> </ul> |
| <b>Wind farm operation and maintenance phase</b> | <ul style="list-style-type: none"> <li>Install lampblack purifiers in the dining halls at the booster station</li> <li>Discharge sewage after being processed through the integral sewage treatment equipment</li> <li>Regularly monitor and publicize the results of noise produced by wind turbines</li> <li>Proper disposal of solid waste</li> </ul>  |



Attended the launching ceremony for the publicity week of ecological progress of Inner Mongolia Autonomous Region, and called on public participation in environmental protection action



Stick the sawtooth trailing edge on to wind turbine blade to reduce noise





## SUSTAINABLE DEVELOPMENT REPORT

# Employees

Best working environment, comprehensive  
talent cultivation

Employees are the most valuable treasure of Goldwind. The Company always sticks to people-oriented concepts; to protect employees' interests, provide diversified training, and to improve the talent cultivation system. It stresses the growth of employees, endeavoring to create a healthy, safe, open and equal working environment and to promote the common development of the Company and the staff.



# Employees

## Fair and standard employment

According to China's Labor Law, *Labor Contract Law* and other national laws and regulations, Goldwind formulated the *Employees Recruitment Management Files*; stipulating that there is no discrimination in terms of gender, race, religion, age or other aspects. Furthermore, child labor and forced labor are also forbidden, in order to recruit talents which are in compliance with the Company's requirement in a fair and equal way. Moreover, for the internationalized strategy, the Company formulated the *Foreign Personnel Management System* to regulate management of foreign employees to protect their legal rights. Foreign employees with different religious beliefs can enjoy varied vacation policies.

Employees by gender

| Male  | Female |
|-------|--------|
| 5,926 | 1,294  |

Employees by type

| Contractual employee | Outsourcing labor | Labor agreement employees | Intern |
|----------------------|-------------------|---------------------------|--------|
| 6,922                | 264               | 34                        | 53     |

Employees by age

| 29 and below | 30-39 | 40-49 | 50 and above |
|--------------|-------|-------|--------------|
| 3,930        | 2,562 | 491   | 237          |

Employees by region

| China | Other Asian countries | Europe | North America | South America | Oceania | Africa |
|-------|-----------------------|--------|---------------|---------------|---------|--------|
| 6,769 | 6                     | 267    | 84            | 3             | 81      | 10     |

Employees by major

| Workers | Sale men | R&D personal | Service men | Administrative personal |
|---------|----------|--------------|-------------|-------------------------|
| 1,292   | 332      | 2,080        | 1,986       | 1,530                   |

Employees by education

| Master and above | Bachelor | College diploma | Below College diploma |
|------------------|----------|-----------------|-----------------------|
| 1,140            | 3,278    | 1,880           | 922                   |

Employee turnover by gender

| Male   | Female |
|--------|--------|
| 11.40% | 12.60% |

Employee turnover by region

| China  | Other Asian countries | Europe | North America | South America | Oceania | Africa |
|--------|-----------------------|--------|---------------|---------------|---------|--------|
| 11.60% | 25%                   | 12.50% | 17.85%        | 0%            | 6.67%   | 20%    |

Employee turnover by age

| 29 and below | 30-39 | 40-49 | 50 and above |
|--------------|-------|-------|--------------|
| 14.60%       | 8.45% | 9.30% | 2.95%        |

Strictly observing national laws and regulations, Goldwind sets up a reasonable incentives and competitive salary systems. In addition to timely salary payment, it also pays adequate employees social insurance and housing funds in a timely manner, to protect employees' interests.



## Training and development

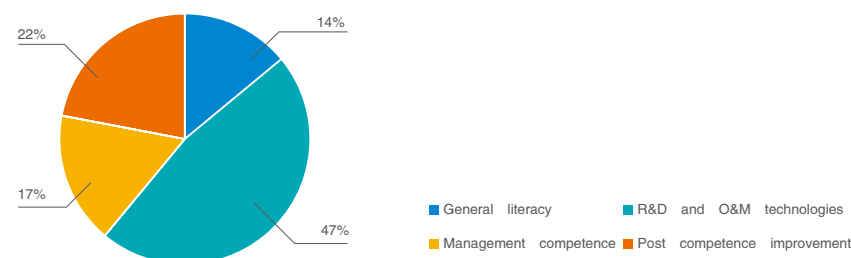
Relying on the strategic talent cultivation program, the Company offers employees broad development space and platform, through clear planning of career development paths as well as sufficient training opportunities.

### Employee training

Goldwind classifies three levels of training; company level, business section level and department level. The Company has invested RMB15.14 million in training and completed training courses amounting to 18,474.30 class hours; with contents covering four categories of general literacy, post competence improvement, R&D and O&M technologies and management competence.

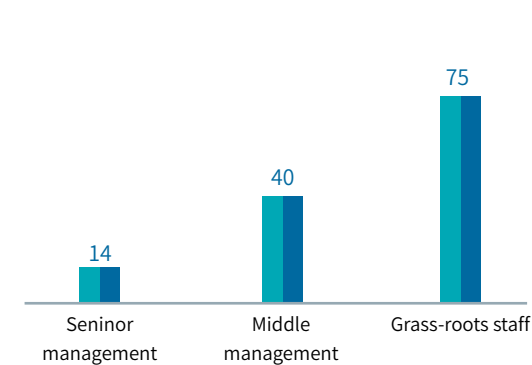
The Company formed the *Training Management System*, to standardize the management of trainings and enhance the level of training work. Supported by the resources of Goldwind University, the Company makes annual training plans, designing varied management and technical training courses for different levels of employees. Employees also have comprehensive learning opportunities from both internal and external trainings. To those qualified employees, according to their length of service, the Company gives different proportions of allowance for tuition fees to support them in on-the-job continuing education, upgrading education and professional qualification certificate examinations.

Employee turnover by gender

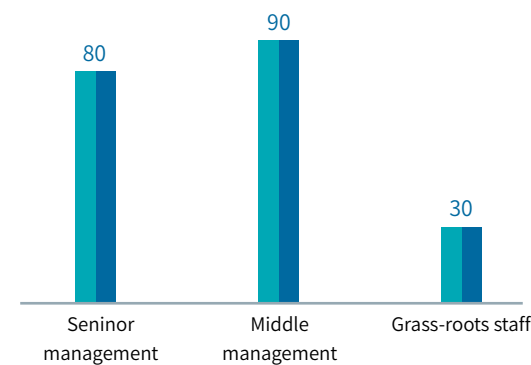


Training hours per person and proportion of trainees according to different types of employees

Training hours per person by different types of employees (hour)



Proportion of trainees according to different types of employees



Note: The above only includes data of the headquarter.

### Case: China's first enterprise university in the wind power manufacturing industry---Goldwind University

In order to provide employees with systematic training courses and an exchange platform, the Company set up Goldwind University in 2011, which is also the first enterprise university in the country's wind power manufacturing industry. With the tenet of "openness, learning, innovation and truth-seeking" and the aspiration of "cultivating talents for creating the value of new energy, perform social responsibilities," the university becomes a learning base for all employees in Goldwind. The university invites senior experts from inside as well as experts and scholars from outside to give lectures. The university not only helps to enhance the comprehensive ability of employees but also to transmit its product knowledge product to peer companies, and it promotes the systematic and standardized management of the Company's training activities. As an important training base, Goldwind University offers trainings not only to employees but to customers with wind farm operating training, to suppliers and carriers with overall excellent industrial chain training to develop talents for the whole industry as well as the common growth and development of the wind power industries.

### Skill training

In 2016, in view of the tasks of technical posts, the Company reviewed related information of these posts in terms of management process, resource utilization, staff incentive, partnership and self-management, to work out the learning path for technical personnel, based on which varied courses were developed to give to technical personnel with different specialties.

Training plans for technical personnel in the Company in 2016

| Program  | Goals  | Semesters | Trainees |
|--|--|-----------|----------|
| Big data mining and application                      | Teach knowledge related to big data to meet the requirements of the big data era and promote the digitalized transformation of the Company   | 2         | 48       |
| Special training of project management               | Through systematic training on project management, enhance the management capacity of the responsible persons for projects; foster an atmosphere for communication on the management according to projects and its implementation; introduce knowledge of project management | 3         | 140      |
| Front-line supervisor training camp                  | Enhance the management and skills of the front-line managers and team leaders, improving the professional skills of primary supervisors and their ability to energize the team, to raise working efficiency and foster excellent team  | 4         | 134      |
| Business presentation and demonstration skills       | Through training on doing presentation and demonstration, to encourage sales, marketing and technical staff to improve their skill and level in business communication   | 4         | 86       |
| International business people basic ability building | Through professional learning, regulating operation and other means to strengthen the implementation of the international strategy, expanding the vision and enhancing capacity  | 3         | 69       |



# Employees

## Case: Internal trainer management

In order to make full use of the internal resources and inherit the Company's technological knowledge and culture, Goldwind selects employees with the experience of developing or giving lectures to organize a team of internal trainers. Through formulating the *Internal Trainer Regulations*, the Company implements regulated and scientific management of internal trainers. At the end of every year, Goldwind University carries out assessment and promotion work according to reference indicators for internal trainers. In 2016, 56 employees applied for the competition of "I am a lecturer with good courses". After the training and competition procedures, 46 became the university's junior trainers. The increasing number of internal trainers strengthens the faculty for the Company's training program, promotes exchanges between and innovation of employees, and is also conducive to accumulating the knowledge of the Company's product.

## Educational upgrading

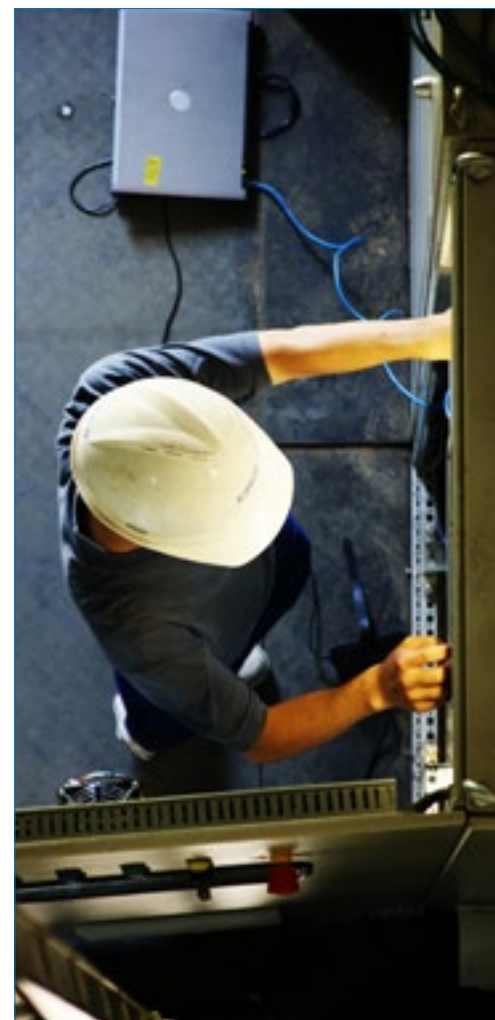
The Company encourages employees to upgrade their education background. We develop a number of talent cultivation plans for different levels of employees with different posts. For instance, there are the Navigation Plan, Adventure Plan, and "One-hundred Talents Plan". In 2016, over 40 employees upgraded their education through the Company's training programs.

## Career development

The Company sets up the system comprising two channels of career development for employees and it also opens the space and points out the direction for staff at the professional. The system consists of professionals and management channels. The former is targeted at expert talents, in which the employees' work is mainly for implementing tasks in specified areas. Their assessment is about whether or not they master the professional knowledge and skills of a certain area. The latter one is targeted at the Company's core managers, whose major responsibilities are to make schemas for the department, center or the Company; make decisions; promote reforms; cultivate and motivate others; and coordinate and guide the work for a certain business line or a module.

## Internal competitive employment system

In order to optimize the Company's personnel structure and bring more opportunities for personal growth of employees, the Company encourages reasonable talent flow internally and builds an internal competitive employment system in this regard. It introduced the Internal Recruitment Management Method, regulating the mechanism for *internal talent flow*, specifying the *internal* employment procedure and encouraging employees to participate in internal recruitment. Also, Goldwind welcomes the employees to recommend talents to the Company and gives awards for this end; hence it drafted an *Internal Recommendation Management System*.



## Case: The One-hundred Talents Training Program

The One-hundred Talents Program is for training strategic technical talents. It adopts the model of tailored enterprise-university joint training. The trainees attend the courses co-developed by universities and corporations, with learning projects for handling practical problems, cross-industrial visit and exchanges, as well as self-improvement as supplementary training methods. The program increases workers' knowledge and technical level, as well as fulfills the needs of individuals and the Company.

67 trainees of the first One-hundred Talents Program won Master of Engineering. They went through five-semester and altogether 75-days of learning from May, 2015 to October, 2016. The learning process included training for project management and electric engineering, as well as 158-class hours at Goldwind University. They also engaged in the curriculum development for 67 technical and management courses. Finally, they completed nine technical tasks the Company was faced with through collaborative work.

"I will share my experience in this learning process for the Master of Engineering with my team. And I will keep on learning to improve myself. Moreover, I will apply what I learned to my work to strive for more accomplishments."

Dang Anqing, business division in North China, the customer service center for wind turbine business

Number of Master of Engineering of the first session of One-hundred Talents Program

67

Training hours of project management ,electric engineering, and other courses in Goldwind University.

158 hours



# Employees

## Health and safety

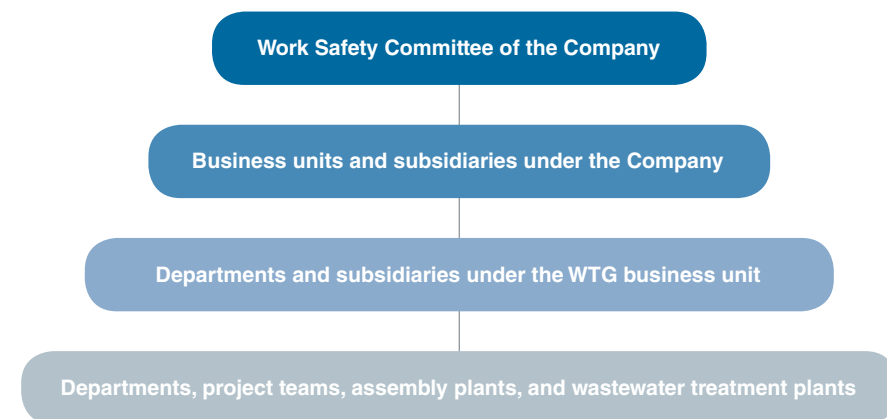
Goldwind framed management system for career health and safety, which got the OHSAS 18000 certification. It also compiled the *Environment and Occupational Health and Safety Management System*, aiming to strengthen safety work management, preventing possible harm to workers in production and operation, and get rid of major safety incidents. The Company cares about physical and mental health of employees, and it built various platforms for improving their health. In 2016, there were no on-duty casualty and the loss due to occupational injury was equivalent to 169 working days.

## Safety management network

Goldwind builds the four-level safety management network. Communication channels, safety production reports and regular meetings every month and quarter are all measures to ensure the effective transmission of safety production information. The Production Safety Reward and Punishment System are made for identifying the positive and negative actions in safety production. Moreover, the practice of one-vote veto was implemented, which means a department or individual will be ruled out for prize, promotion or award, if they have serious problems in safety production.



The Company's four-level safety management network



Goldwind also has the *Environment, Occupational Health and Safety Production Assessment (or Accident Potential Inspection and Administration) System* and the *Safety Production Accident Reporting, Investigating and Administration System*, to inspect hazards and respond immediately to incidents to reduce the loss. The Company also formulates special emergency plans and carries out emergency drills to ensure every employee has the safety awareness and skills to respond to emergencies.

The Company's safety production check system

| Category      | Content  |
|---------------|--|
| Cycle check   | Daily, weekly and monthly checks by safety managers, team leaders and employees  |
| Regular check | The department in charge of safety production organizes overall safety checks according to schedule  |
| Special check | Professional technical staff do special, quantitative and qualitative check on a specified problem or on general safety issues in production and operation |

## Safety training

Goldwind formulated the *Safety Production Training Management System*, setting requirements and content of safety training for employees of different levels and posts, to increase the safety awareness and prevent risks. It also built the certification mechanism for internal safety management personnel and encourages them to obtain the national registered safety engineer qualification. The certification process includes systematic training and assessment for capacity. At the end of 2016, there were 66 full-time and over 300 part-time safety workers that passed the internal certification and about 30 workers that obtained national qualifications.





# Employees

## Case: Set up the first examination point for safety production in high-place operation of the wind power industry

In November 2016, under the guidance of the Beijing Administration of Work Safety and the Administration of Work Safety of Beijing Economic-technology Development Area, as well as the technological support of Beijing Academy of Safety Science and Technology, after two years' efforts, Goldwind finished the training and evaluation for "equipment installation, repair and maintenance work" of the high-place operation, as well as the hardware and software construction. It got the qualification for training and appraisal for safety production from the Beijing Safety Production Qualification Examination Center. It became the first examination point for safety production in high-place operation of the wind power industry.



## Occupational health management

The Company pays attention to the mental and physical health of every employee. It formulated the *Employee Health and Occupational Disease Prevention and Control System*, setting up detailed occupational health record and occupational health monitoring records. It also regularly carries out the occupational hazard factors detection and evaluation and hazard identification activities. The Company notifies the employees about the occupational hazard factors and includes occupational health and safety production into induction training. The Company provides prevention measures for workers including professional and special labor protection equipment. Equipments and chemicals with potential risks are placed with warning signs or pasted with warning labels. Facilities and equipment for prevention occupational disease are checked and repaired regularly.

The Company compiles the Wind Power Construction Site Health Management Manual, offering simple and convenient measures for dealing with prominent health problems and also gives directions to employees' their working and living habits, so as to improve their health from the source. The Company supplies comprehensive and timely occupational health checks, including pre-service, in-service, after-service and emergency body checks to follow their health condition.

## Safety training in 2016 (Unit: hour)

| Content                     | Training hours |
|-----------------------------|----------------|
| Special operation worker    | 3,152.50       |
| Safety managerial personnel | 2,329.00       |
| Front-line worker           | 34,867.00      |
| New employee                | 5,728.50       |
| Major responsible person    | 665.50         |
| Business personnel          | 2,564.00       |

*\*The above does not include data from Goldwind's overseas offices.*



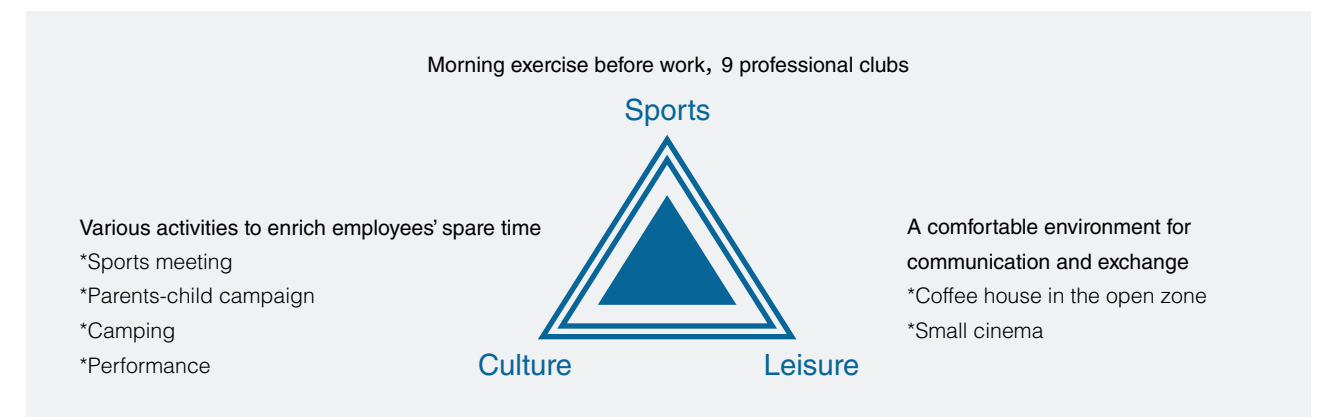
In 2016, the Company's occupational health system building was mainly divided into four fields: a health management data platform building, an industrial culture promotion and communications for team efficiency enhancement and employee quality improvement. For scientific management of employee health, Goldwind, together with the institute of China's General Administration of Sport, created a database for employees' fitness test. In 2016, the Company utilized professional equipment to give comprehensive, meticulous and professional examination to over 1,500 employees. Examination reports as well as scientific and tailored guidance to employees' workout were also provided.

## Employee care

Goldwind is committed to creating a balanced and vigorous environment for work and life. It plans various activities to keep physical health and reduce pressure. It also listens and responds to workers' opinions and strengthens communication with employees. In addition, a welfare system for all the workers, especially those in difficulties, has the Company's care.

## Balance work and life

The Company tries to create a good environment for entertainment and learning as well as cultural and leisure activities, to help employees maintain physical and mental health.



In 2016, the Company set up nine clubs for badminton, basketball, tennis, yoga, swimming and other sports. Employed professional coaches and retired national athletes give directions to employees for sports and fit-keeping to improve body health. At the end of 2016, there were 633 members in the clubs. Throughout the whole year 339 activities were organized with over 9,000 participants, and the degree of satisfaction reached above 90%.



Parents-child campaign



Tug-of-war competition

# Employees

## Communication and exchange

Goldwind values employees' opinions. For new comers, the Company applies the *New Employee Cultivation Manual* and builds the tutor mechanism. It also establishes the general manager Coffee Time mechanism as a platform for new employees to talk with senior managers. In addition, through a WeChat group, the Company can follow the new employees and timely solve their problems.

The Company sets up the Employee Representative Committee whose members are all front line workers, and who are capable of collecting workers' opinions and transmitting to senior managers. In addition, it organizes communication activities for employees every quarter, and builds other communication platforms like employees' forum and WeChat accounts. In 2016, Goldwind's HR APP was downloaded by over 4,000 persons, and a call response platform was built with a specially designated person on duty.

## Cultural exchange

Since Goldwind has gone global, foreign employees have increased every year. The Company organizes activities for foreign employees to communicate with Chinese workers to promote Chinese cultural differences and to recognize their various cultures. We strive to teach cultural integration; thus creating an open, inclusive and internationalized work and living atmosphere. Every quarter, the Company also carries out cultural exchange activities where employees can experience other countries' customs.



Fourth International Cultural Exchange Activity in 2016



Salon for exchanges Chinese and foreign music in 2016

## Welfare

The Company endeavors to provide comprehensive welfare to employees, centering on the basic necessities of life.

|  |   |
|--|---|
| Give out to front line workers necessary articles like scarves, waist bags, magic kerchiefs, tableware, hats, travel bags, etc, on a regular basis | Set up dining halls for workers in Beijing office (first and second-phase project), and provide varied and healthy food for workers |
| Clothing   | Food  |
| Housing  | Transportation  |
| Provide dormitory, and strive for the indemnificatory housing from local government to solve the housing problems of workers                       | Provide shuttle bus, and set up the rental station for electric cars, facilitating workers' low-carbon transportation               |

The Company provides extra care and welfare for special employees:

### Worker at the production line

- Families of front-line workers qualified for indentified length of service can pat visits to the project and apply for reimbursement of train tickets, while employees can have a three-day paid holiday during family visits
- Add the special examination items (like lumbar check) into annual physical check, and regularly provide welfare articles likes medicine, drinks, and other materials for cooling in summer, as well as health and fitness facilities; the Company also pay visits to front line workers for condolence

### Staff with difficulties

- Assist workers running into difficulties because of disaster, sickness, or other special reasons because of difficulty. The Company solves workers' practical problems through organizing employee donations, company funds, and payments in advance and by other means.

### Staff in pregnancy and puerperium

- Supplementary medical checks will be given to staff who cannot attend the annual physical check and also specialized health lectures are organized
- Set up windows and seats for staff in pregnancy or puerperium at the dining halls







# SUSTAINABLE DEVELOPMENT REPORT

## Supply Chain

Green industry, win-win cooperation

Goldwind regards the suppliers as part of the industrial ecosystem. Through continuous and effective communication, offering technological training and support, and carrying out joint research projects, the Company strives to build an overall excellent industrial chain to enhance the management of the supply chain and realize win-win cooperation.

Supplier management

Goldwind formulated the *Purchasing Management Guidelines, Management Measures for Qualified Suppliers of the Wind Turbine, Development and Management Norms for Wind Turbines and Component Suppliers, a Purchasing Contract Management System for Delivery Centers*, and other regulatory rules, to improve the development and management of suppliers, to ensure the openness and fairness of the purchasing link.

In 2015, the Company proposed the concept of “treat suppliers well”, and sticks to it. There are also three specified indicators: 100% picking up of goods in the contract, 100% payment, and encouraging and supervising the suppliers’ 100% payment to secondary suppliers.

Global distribution of Goldwind’s suppliers\*

| Regions               | Suppliers |
|-----------------------|-----------|
| China                 | 219       |
| Other Asian countries | 7         |
| Europe                | 68        |
| North America         | 20        |

\* The above data does not include other business than wind turbine manufacturing.

New suppliers must go through a comprehensive evaluation including the level of techniques and quality, as well the capacity of production and after-sales service. The Company signs a *Sunshine Cooperation Agreement* with every supplier to ensure the transparency and fairness of economic activities and stable cooperative relations.

Qualified suppliers will receive monthly and annual assessments, involving price, quality, delivery time, technological ability, service and other aspects. In 2016, all the Company’s suppliers went through the assessment. According to assessment results, the Company classified suppliers into five levels, and those are leveled as 5 stars will have the opportunity to be selected as Goldwind’s Excellent Supplier. As to other levels of suppliers, the Company formulates plans like training camps to enhance their quality and credit as well as help them steadily improve product quality.

The Company held the 8th supplier conference with the theme of jointly creating a green future based on collaboration and innovation. More than 260 people from famous enterprises within the wind power industry took part in the conference. 17 suppliers received praise at the conference for their excellent performance in 2016. Great development plans on green future were discussed at the conference from multiple prospective. Discussions were held regarding competition trends in the industry development, wise energy development, full excellent industrial chain construction, and brand quality guarantee, etc. The Company has set up an open platform for profound cooperation and exchanges, which intensifies the understanding and communications between the Company and our partners.

"Treat suppliers well" indicator

3×100%



Green supply chain

New energy industry produces no pollution during the power generation process, but the impact of the whole lifecycle of photovoltaic panel, wind turbines and other equipments on environment draws wide attention. The energy consumption during their manufacturing and recycling will also be taken into assessment. Therefore, new energy should ensure low consumption and high efficiency throughout the lifecycle. Hence, the Company initiated the concept of “green supply chain” and systematic solutions, which is to take Goldwind as a bond to promote the green transformation of suppliers; and on the premise of improving environment, energy conservation, and carbon reduction, to enhance the competitiveness of the whole industrial chains, and to finally realize sustainable development.

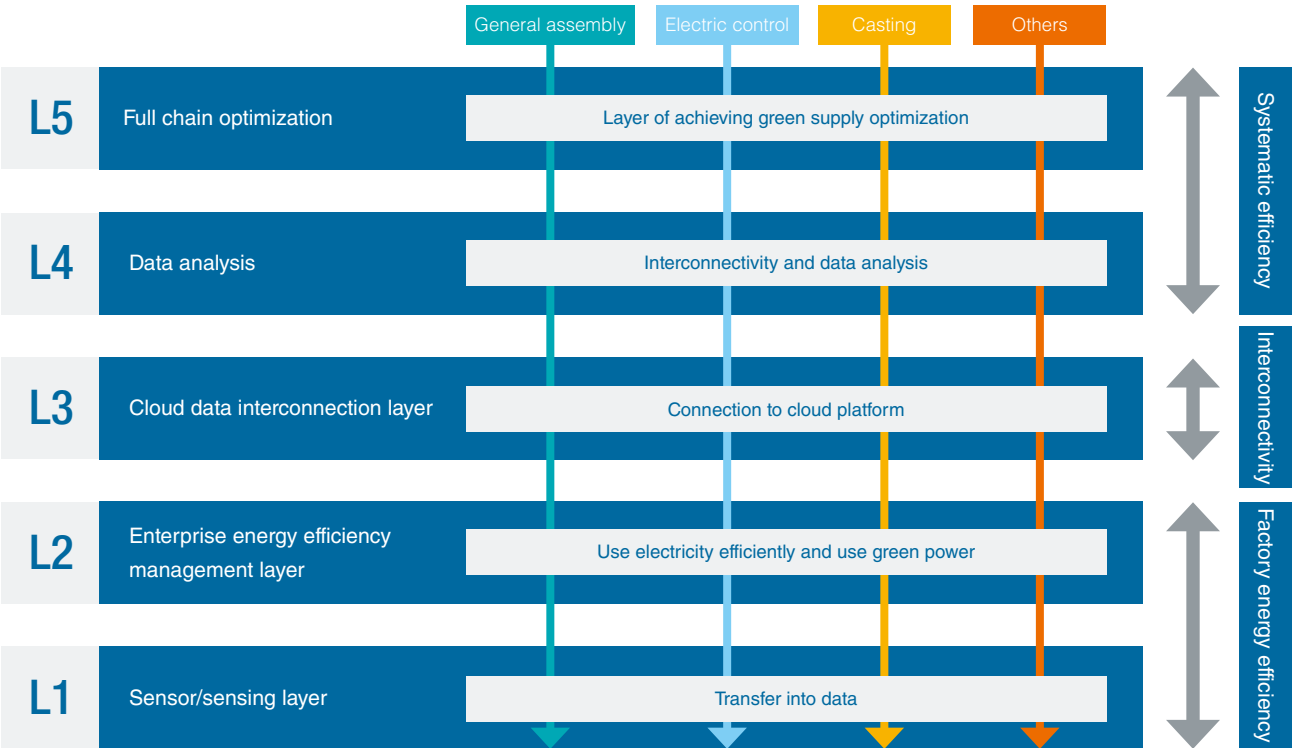
In August 2016, the Company cooperated with the Energy Research Institute of the National Development and Reform Commission to carry out the project of “The operation, mechanism and research on Goldwind’s green supply chain” program. The program takes Goldwind’s green industrial chain as the model to explore and research on the operation mode and to promote mechanisms for enterprises on energy savings and carbon reductions. Based on experience, the program intends to provide a new model for Chinese manufactures to follow in order to realize a green transformation by energy savings and emission reduction.

Number of suppliers cooperated in green supply chain

6

Reduction of energy consumption per production for suppliers under our assistance

3%



Modal of the Company's green supply chain



Smart wind power solutions can help suppliers to increase the use of renewable energy and then realize green use of energy and green production. By the end of 2016, Goldwind has facilitated many companies to build smart energy solutions, including:

- assisting in developing wind power, photovoltaic and other distributed clean energy;
- building an energy efficiency management platform, to regulate the consumption of water, electricity, gas and other types of energy;
- establishing the database of green supply chain; analyzing product flow, cash flow, energy flow and carbon flow of the whole industrial chain, to dig more space for energy saving;
- adopting the methods of Energy Performance Contracting<sup>1</sup> and Energy Management Contracting<sup>2</sup> to realize energy savings and to reduce consumption.

<sup>1</sup> *Energy Performance Contracting: The Company signs a contract with customers for energy saving services and then provides customers a set of energy saving services covering project design, construction, equipment installation and testing, and employee training; The Company recoups the investment and gains profits from the customers'energy-saving benefits.*

<sup>2</sup> *Energy Management Contracting: The Company's contracting management of customers' energy purchase and utilization as well as efficiency of equipment, energy consumption mode, and evaluation of energy-saving by the government; The Company also provides funding for technological support and equipment replacement, to help customers save energy and cost.*

Cases of smart energy solution

| Suppliers  | Smart energy solution   |
|--|---|
| CRRC Yongji Electric Co., Ltd                      | Integrating the smart micro-grid control technology, renewable energy power generating technology, energy storage technology, and other technologies and products, build a set of smart, economic and green efficiency system covering both the generation side to load side; help the Company's intelligent and visual management, realize the centralized dispatching and flat management of the energy system, enhance the Company's energy management level, and ultimately achieve reducing consumption and increasing efficiency. |
| Shandong Longma Heavy Industry Technology Co., Ltd | Through evaluation and data analysis of existing energy consumption system, build smart micro-grid control system, enabling the coordinated operation between wind turbine, photovoltaic, stored energy and micro-gas turbine, to reduce the energy cost, increase energy efficiency, and improve energy management.  |
| Far East Holding Group Co., Ltd                    | Build the collaborative and integral energy supply system, to increase the use of renewable energy in production; realize the smart energy consumption at the load side, to raise the energy efficiency to its best.  |
| Ningbo Rixing Casting Industry Co., Ltd            | Comprehensively and systematically monitor and analyze the energy consumption data.   |



Win-win cooperation

Based on communication, Goldwind built a mutual-trust mechanism with suppliers, to answer customer and market needs, deepen the cooperation, and realize the joint enhancement in technology, management and product quality.

Supplier training

After knowing the difficulty customers encounter in realizing the goal of quality, capability and cost control, Goldwind organizes training for suppliers to discuss and explore solutions to enhance the ability of suppliers in technology, capacity and operation. The final goal is to realize win-win cooperation in technology and quality.

Based on Xi'an Wind Power Co., Ltd., of China Water Investment Group (Xi'an base), the Company also built blade technology and quality training centers (Baoding base) and Goldwind-TUV Rheinland joint training and certification center (Shanghai base) successively in 2016. They provide management training, certification training, training camps, communication conference, industrial chain meeting and other training programs for suppliers.

Case: Overall excellent industrial chain training

In 2016, Goldwind organized a nine-month training for overall excellent industrial chain suppliers, carriers and third-party personnel. The training program prepared 32 face-to-face courses, selected and cultivated 37 lecturers from the Company, lasted for 20 days (136 hours), and benefited 452 trainees, while 254 got certification. Trainings for managers and executive staffs can enhance suppliers' quality awareness and management and from the quality culture of Goldwind to suppliers. While suppliers change from being passive management to active self-management, they and Goldwind can both raise the management efficiency and then jointly realize the goals of quality, capacity and cost control.

"Managers and other employees are shifting their focus more on customers and the market. Through joint building of the overall excellent industrial chain, we have enhanced our professional skills and comprehensive capacity. We would like to collaborate with Goldwind to innovate and progress, and achieve our goal step by step."

Chen Hongwei, Chairman and President of Onoff Electric Co., Inc.

Supply chain financing platform

Goldwind is committing itself to improving the industry's financial environment and helping our partners' financing. It actively tries to take use of its own credit status to build platforms for cooperation and exchanges between suppliers and financial institutions and social capital, so as to promote the collaboration and win-win cooperation of the whole industrial chain.

The Company positively tried to cooperate bank's supply chain financing platforms to facilitate suppliers to get low-cost financing and accelerate the turnover of capital. Suppliers can use the receivable assets utilized in deals with Goldwind to finance in the bank without guaranteed mortgage and the need to get bank credit on their own. If suppliers intend to do new investments in fixed assets, Goldwind can also help them through its subordinate lease finance companies.



**SUSTAINABLE  
DEVELOPMENT REPORT**

**Society and  
Public Welfare**

Bring Goldwind love to local communities  
and corporate residents in the globe

Goldwind's constant development has always been supported by local governments, society and residents in nearby communities. Therefore, it is not only the Company's "gratitude action", but also an important manifestation of its performance of social responsibilities to help the development of local communities.



## Facilitate the low-carbon city building

Energy is the momentum of social development, while the smart use of clean energy will bring a better future to society. Goldwind continuously promotes strategic transformation in renewable energy systems, solutions, energy-saving and environmental protection section, and endeavors to innovate in intelligent manufacturing, digitalized wind farm, smart city and other fields so as to help cities and regions to achieve low-carbon transformation.

In 2016, the Company signed strategic cooperative agreements with Zhangjiakou Municipal Government and its Jingkai District to jointly build a national renewable energy demonstration area. Based on existing technologies and products, the Company will cooperate with Zhangjiakou City in such fields as renewable energy equipment production, wind-solar resource development, renewable energy demonstration base, R&D and application of micro grid, photovoltaic agriculture, public environmental protection and cultivation of professional talents, to foster a competitive industrial base in Zhanjiakou and help to host a green Winter Olympics.

In 2016, the Company signed strategic cooperative agreements with Dafeng District Government of Yancheng City to take advantage of the Company's Micro Smart Grid, load-side management as well as other advanced technologies including comprehensive efficiency, smart big data platform, smart water supply, and environment related technologies in promoting the transformation and upgrading the district's energy strategy, and building a national smart energy demonstration city.



Micro Smart Grid in Dafeng, Yancheng

In 2016, the first electric heating boiler of the wind power heating project in Xinjiang Fertilizer Plant at the Dabancheng District, Urumqi, came into operation, and it is the first operating clean energy heating project in Xinjiang. The project uses Goldwind's 109/2500 turbine, and the scale of the wind farm is 100 thousand kW. It will effectively improve the heating quality of local households covering an area of 200 thousand square meters, consuming 28.80 million kWh of wind power, which is equal to saving of 9,158 tons of standard coals as well as a reduction of 25,940 tons of carbon dioxide and 1,652 tons of sulfur dioxide. It is of great demonstration effect for improving people's livelihood while protecting the environment.

## Drive local economic growth

Goldwind actively promotes the localized management of production bases and oversea projects, abides by local laws and regulations, and pays taxes according to law. While bringing jobs to local residents, the Company also cultivates a large number of talents. In 2016, the total tax of the Company was 2.10 billion RMB and provided posts for 382 people.

As a wind turbine manufacturer, the Company drives the development of local industrial clusters with the Company's large demands for components, concrete and other materials. The high requirement for wind turbine transportation enhances the logistics capacity. Moreover, wind farms can be a landscape which boosts local tourism.

In overseas, the Company strives to do purchase and production in localities. In South Africa's Golden Valley & Excelsior project, the service and equipment necessary for installing tower tube, engine room, and wheel hub are mostly bought locally; the cost occupying 40% of the total of EPC project. In America and Australia, the Company also bought tower tube, cable, anchor bolt and other equipment locally.

### Case: Production base drives local industrial development in Jiuquan Gansu

Goldwind's production base in Jiuquan brings about a total order of 6 billion RMB to more than 10 local enterprises; buying blades, towers, tooling, and standard components. In order to strengthen the R&D capacity of local industrial, together with local enterprises, the Company builds experimental research centers on wind power special coating in Lanzhou City, and also builds 2 wind power blade special coating production lines. In addition to tax contribution, the Company also offers job opportunities.



In 2016, the total tax of the Company was

**2.10** billion

Additional jobs provided

**382**

## Co-build healthy and happy community

Goldwind regards itself as part of the community. Upholding the concept of coexistence and co-prosperity, it actively engages in local development and ensures its operation brings forth positive influence on local communities and residents. We come into the community to see the needs of local residents and then make contributions making use of our advantages. In 2016, the Company invested 5.39 million RMB for local benefit and 2,540 hours for engagement in activities.

### Case: First wind power summer camp in China

2016, Goldwind successfully held the “Chasing the Wind” summer camp for juveniles, which is the first wind-power-themed camp in China. By visiting WTGs on-site and the factories, the camp offers opportunities for teenagers to learn about new energy, understand the manufacturing industry, develop interests of new energy industry, which encourage them to keep exploring.



### • Education

With the concept that education is key to poverty alleviation, the Company always takes education as an important area and invests much in it for local development. Since 2013, through donations for the construction of schools, libraries, activity rooms and other facilities as well as to drinking equipment, desks and chairs, books, school uniforms and more to improve local educational and learning environment.

In overseas communities, based on the locality its projects are in, Goldwind actively communicates and interacts with surrounding communities. It regularly helps elementary schools, children's assistance centers and other institutions through means like donation and volunteer work, winning recognition and support from local residents and governments.



Launch the “Wind for the Future” program for training rural teachers



Educational stationery donation

### • Sports

The Company opens professional clubs together with coaches and sports fields to local residents and employees from nearby enterprises. It cooperates with local governments and professional sports organizations to hold various activities and competitions, contributing to building health communities. In 2016, the Company cooperated with the Beijing government and sports organizations to hold competitions involving sports like basketball, football, table tennis, badminton, walking, tug-of-war and rock climbing.



Sports sponsorship



Support an Uighur teenager football team for cultural communication trip to Beijing

### • Culture

Goldwind respects local culture and supports local cultural development. At the initial stage of choosing locations for wind farms and designing routes, it pays attention to protecting local cultural relics while keeping distance from spots where residents usually hold cultural activities. In terms of wind turbine designs, the Company tries to embody local traits. For example, most residents in Panzhihua, Sichuan are the Yi nationality with the tradition of totem worship, so the Company prints the totems on the wind turbine.



Wind turbine printed with local totem



### • Infrastructure

The Company donates roads, squares, lighting facilities and other infrastructure to improve the local living environment. The Jiamate Village at Duolate Township of Tuoli County, Tacheng City in Xinjiang is the Company's fixed-point poverty relief work, and it donated 400 thousand RMB in 2016 for building squares and streetlights in schools.



## Topic: “Wind for the Future” charity activities

In 2016, Goldwind initiated the “Wind for the Future” charity activities, covering 17 provinces and cities nationwide. It benefited over 4,000 pupils and teachers and over 100 thousand farmers and herdsmen from 7 nationalities in the countryside.

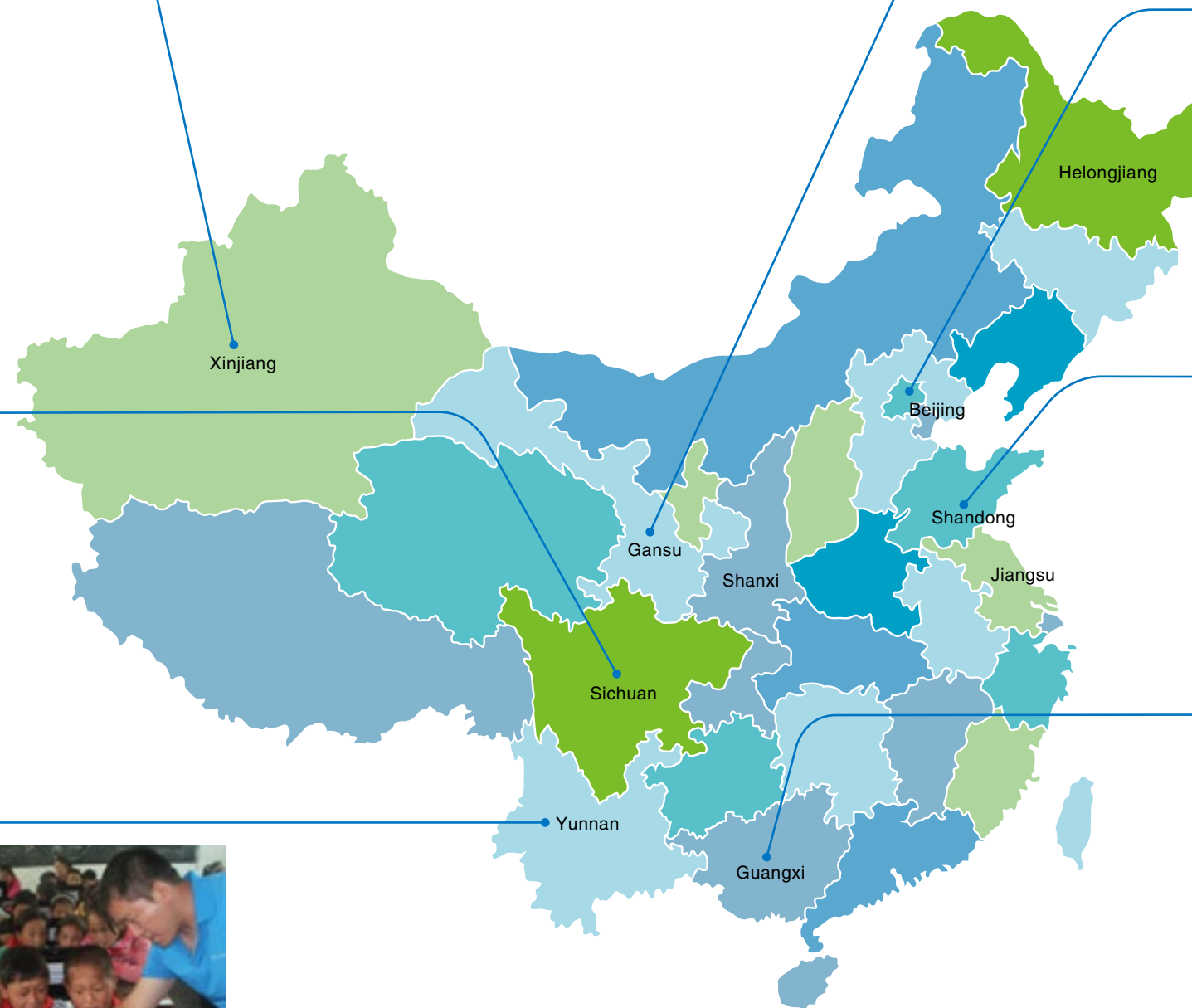
Donate infrastructure and teaching facilities to the school in Duolate Township of Tuoli County; provide aid to the infrastructure construction in Jiamate Village, to improve the education and living standards of local herdsmen of the Kazak nationality; facilitate the infrastructure construction and education in Moyu, Hetian, Maigai, Yutian, etc.



Provide aid in construction of information technology classrooms, desks and chairs, as well as dormitories; gave supporting education of computer, music and dancing in Lujixiang Center School in Xide County



Donate dining tables and chairs, kitchen ware, Goldwind Library, schoolbags and other facilities for teaching and living, in Muwacu Primary School in Qiaojia County



Donate schoolbags, stationery, teaching computers, televisions, duplicators, sport equipment and other facilitates to improve the teaching condition and gave various forms of supporting education in Jinhe Primacy School, Guazhou County



Launch the “Wind for The Future” program for training rural teachers, inviting 40 rural teachers from 12 provinces and cities as well as seven nationalities to come to Beijing for training and exchanges; fund the trip of football team “Hope” from Moyu, Xinjiang to Beijing.



Donated computers, schoolbags and many sports equipment to Xihe Primary School in Boshan District in Zibo City



Celebrated the Double Ninth Festival with over 1,000 students and the elderly people and donated Goldwind Library in Longming Township, Tiandeng County



The map for “Wind for the Future” activity



# Prospect

In 2017, Goldwind will stick to the mission of “Preserving blue skies and white clouds for the future”, striving the goal to become a leading international provider of integrated clean energy and energy conservation solutions.

## Innovation-driven development

With the goals of improving product quality and customers' experience, the Company will continue to provide safe, reliable, economic and efficient products and services for the wind power industry. Centering on quality control, we will seek breakthroughs and keep the leading role in the industry through technological innovation as well as product and service innovation.

## Environment and resource protection

The Company will infuse environmental protection into the whole lifecycle of products and introduce the green strategy into the whole industrial chain, to pursue a sustainable development of the wind power industry. We will transform more natural clean resources into usable energy efficiently, assist more customers to realize their own sustainable development, and then ultimately promote the adjustment of the overall energy structure in society, to cope with global climate change.

## Sustainable supply chain

Based on the overall excellent industrial chain and collaboration, we will deepen strategic cooperation with other links in the industrial chain, accelerate the upgrading of key technologies and equipment, and help suppliers to improve quality and technologies. We will also advance the “green supply chain” development, facilitate suppliers to enhance sustainable development, and achieve a responsible, transparent, efficient and sustainable supply chain.

## Assistance in employees' development

The Company will endeavor to create the best working environment for employees. It pays attention to healthy career development by offering competitive salary and scientific promotion channels. Relying on talent training strategy and projects, the Company will offer employees broad space and platforms for personal growth.

## Global corporate residents

The Company actively implements localized management and operations. We will actively communicate and interact with communities surrounding our projects, supporting and contributing to local development. We will carry more activities for public welfare around the globe by fostering the “Wind for the Future” brand.



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# Feedback Form

Dear readers:

Thank you for reading the Sustainable Development Report 2016 Xinjiang Goldwind Science & Technology Co., Ltd.. We sincerely hope to get your comments and suggestions regarding this report and our work as well. Please send the filled feedback form to us via mail, email after scanning or fax, or call your valuable advice directly. Really appreciate it.

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Email: [info@goldwind.com.cn](mailto:info@goldwind.com.cn)

1. Which of the following stakeholder do you belong to?

- ☐ Shareholder   ☐ Employee   ☐ Supplier   ☐ Customer   ☐ Government   ☐ Community   ☐ Financial institution  
☐ Academic institution   ☐ Other (please specify)

2. Have you read the Sustainable Development Report/ Social Responsibility Report of Goldwind? (If no, please ignore No.3, 4, and 5)

- ☐ Yes   ☐ No

3. If yes, do you read a paper version or an electronic version?

- ☐ Paper version   ☐ Electronic version

4. Which version do you wish to read?

- ☐ Paper version   ☐ Electronic version

5. What is your overall evaluation for this report?

·Readability ( i.e. intelligible expression, beautiful design, attractive content, and easy to find the required information)

- ☐ 3 (good)   ☐ 2 (general)   ☐ 1 (poor)

·Reliability ( The information in this report is true and reliable)

- ☐ 3 (good)   ☐ 2 (general)   ☐ 1 (poor)

·Completeness (The report should reflect positive and negative information, and meeting your needs in information)

- ☐ 3 (good)   ☐ 2 (general)   ☐ 1 (poor)

In addition to the contents that have been disclosed, what kind of information do you wish to read?

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March, 2017